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GETTING FIT, STAYING HEALTHY: STRATEGIES FOR IMPROVING NUTRITION AND PHYSICAL ACTIVITY IN AMERICA

HEARING

BEFORE THE

COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS UNITED STATES SENATE

ONE HUNDRED SEVENTH CONGRESS

SECOND SESSION

ON

EXAMINING STRATEGIES FOR IMPROVING NUTRITION AND PHYSICAL ACTIVITY, IN AN EFFORT TO STAVE OFF THE OBESITY EPIDEMIC IN AMERICA

MAY 21, 2002

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C O N T E N T S

STATEMENTS

TUESDAY, MAY 21, 2002

ADDITIONAL MATERIAL

GETTING FIT, STAYING HEALTHY: STRATEGIES FOR IMPROVING NUTRITION AND PHYSICAL ACTIVITY IN AMERICA

TUESDAY, MAY 21, 2002

U.S. SENATE,
COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS,
Washington, D.C.

The committee met, pursuant to notice, at 2:30 p.m., in room SD–430, Dirksen Senate Office Building, Senator Bingaman, presiding.

Present: Senators Bingaman, Dodd, Reed, and Frist.

OPENING STATEMENT OF SENATOR BINGAMAN

Senator BINGAMAN [presiding]. The hearing will come to order. Thank you all for coming.

Today's hearing is on the issue of obesity and the epidemic of obesity and the problems associated with it, particularly in young people.

Obesity has reached epidemic proportions and has become a major public health problem in our country. It is estimated that about 61 percent of American adults are overweight or obese. Obesity rates have increased by 61 percent during the last decade.

The epidemic is particularly alarming when you look at how it affects our young people. The percentage of overweight children has nearly doubled, from 7 percent to 13 percent, while the percentage of overweight adolescents has almost tripled, from 5 percent to 14 percent, over the past two decades.

Although obesity has increased among all populations, this increase is occurring at disproportionate rates among at-risk, medically underserved populations which include racial and ethic minority groups and persons of lower income status.

In my home State of New Mexico, 62 percent of American Indian adults and 63 percent of Hispanic adults are overweight according to the statistics that we have been given

Nationwide, obesity among black and Hispanic children increased by more than 120 percent compared to about 50 percent among white children from 1996 to 1998.

One-third of children from lower income households are obese compared to 19 percent of children from higher income households.

These rising rates of obesity are accompanied by a host of other health consequences, including heart disease, Type II diabetes, some types of cancer, stroke, arthritis, breathing problems, and psychological problems, and many health problems that are typi-

cally thought of in the context of adults, including early warning signs of heart disease such as high cholesterol and high blood pressure and Type II diabetes, are becoming prevalent among children as well.

I think we are all in agreement that there is no one right way to address this problem. It is a problem that will require a comprehensive, multifaceted approach that will have to take into account a wide array of factors that contribute to it. Improved nutrition and increased physical activity have been defined as key factors associated with this issue.

Scientifically, it is well-established that healthy diets and adequate levels of physical activity can reduce the risk of becoming overweight and obese and help reduce morbidity and mortality associated with obesity-related diseases.

I worked closely with Senator Frist and Senator Dodd on legislation that we have entitled "The Improved Nutrition and Physical Activity Act." That legislation focuses on strategies for preventing and decreasing overweight and obesity in families and communities. The legislation includes programs of evidence-based approaches as well as innovative strategies designed to get people moving, eating well, engaged in leading healthy lifestyles across their life span, with a particular emphasis on youth and school health programs.

Very recently, I worked with Senator Leahy and others on legislation to impose restrictions on soda machines in schools, and I received a letter at that point from a substitute teacher in Albuquerque who said, "Dear Jeff, I sincerely hope you will continue to pursue legislation to improve the nutrition of our Nation's students. As a substitute teacher and parent, I see firsthand the awful diets that our kids are existing on while at school. The snack bars which many middle and high school students purchase their lunches from have plenty of chips, candy, sports drinks and pizza, but nutritious snacks such as yogurt and fruit are missing. I have also found that there is not an easy way for a student to purchase a carton of milk in many schools. One of my students jokingly told me one day that he had had a balanced lunch—all the colors were in the bag of Skittles."

It is humorous, but in many ways it is unfortunate that we have students eating bags of Skittles and claiming that that is lunch.

So I think this legislation is important, and I know that this issue is extremely important to our country and appreciate all of you being here.

Let me defer to Senator Frist for his opening comments, and then we will hear from Dr. Dietz.

OPENING STATEMENT OF SENATOR FRIST

Senator FRIST. Thank you, Mr. Chairman.

The number of Americans who are overweight and obese has grown steadily during the past decade. The problem is real, and the problem is one that is increasing. Today, more than 38 million Americans are obese; an estimated 61 percent of adults are overweight or obese, and 13 percent of children and adolescents and children are overweight.

The prevalence of being overweight and obese is indeed increasing among both men and women and indeed all age groups. The problem is real, and the problem is getting worse.

In the first chart here—and these are charts which have really been imprinted in my own mind as I address this problem, because I think they do tell the story of the problem and what we need to do is see what the appropriate Federal, State and local response should be.

The first chart covers 1991 in the upper left-hand corner, 1995 in the upper right-hand corner, and 2000 down below. The Centers for Disease Control and Prevention have tracked risk factors for chronic disease. In the States colored dark blue, over 30 percent of adults are classified as obese. As you can see, this epidemic of obesity is real; it has already across the country in the past 20 years since 1991, and again, just for those of you in the back, you can see the increasing blue, but also the red, which you can clearly see, is greater than 20 percent. You can see that there was no red in 1991, in 1995 no red—and look at where we are in the year 2000 as the percentage of adults who are obese is increasing.

In my own State of Tennessee, Tennessee has the seventh-highest percentage of adults who report no leisure time physical activity and the 12th-highest percentage of adults who are overweight.

Perhaps most disturbing to me are the increases among America's young people. In my own State of Tennessee, nearly 12 percent of high school students are overweight and 82 percent reported eating fewer than the five recommended servings of fruits and vegetables per day.

Nationwide, the number of overweight children has doubled, and the number of overweight adolescents has tripled in the past decade. Again, for those of you in the back who cannot see the chart and read along the X axis there, on the far left is 1973 to 1970, and it moves all the way across to 1999. The blue line is 6 to 9 years of age, and the red line is 12 to 19 years of age. And again it defines, at least for me, the importance of us acting, responding, and working together to develop an appropriate response to this increase.

The Surgeon General wrote last year in his "Call to Action" that "the prevalence of overweight and obesity in the United States has truly reached epidemic proportions. An estimated 300,000 deaths a year are associated with being overweight or obese, and people who are obese have a 50 to 100 percent increased risk of premature death." That is a doubling of the risk of premature death. "Being overweight or obese increases the risk of disease, including heart disease, diabetes, musculoskeletal disorders, and many other conditions."

The third chart uses 1990 data, and the CDC and others are working to update or modernize that data, and if anything, the data is likely to be worse rather than better than in 1990. But this is the leading study in the area, and it shows that poor nutrition and physical inactivity are the second leading causes of death in the United States, resulting in about 14 percent of all deaths.

Again along the X axis is the percentage of all deaths, and along the top is tobacco, and the second, in red, is poor diet/exercise, and

then comes alcohol, infectious agents, pollutants, firearms, sexual behavior, motor vehicles, illicit drug use. Again, that is dramatic.

We have a responsibility to do something about that, and that something, again, as the Chairman mentioned, we are all working to decide exactly what that is, and that is why this hearing today is so important.

The good thing is that it is preventable, and we know it is preventable; therefore, we know that there is something that we can do to prevent this dramatic impact that poor diet and lack of exercise has.

There is not a single solution, but we know that progress can be made by educating people, by providing more information, by making better known and more broadly known the healthier options and increased opportunities for physical activity.

People ask me all the time, "Do you really want the Federal Government in this business?" and the answer is yes, because we can demonstrate both leadership and, through legislation, a coordination, a highlighting and a spotlighting of the problem and potential solutions.

More research, for example, is needed to help us find solutions and better target interventions. More resources are needed to expand those programs that we know are successful. Enhanced oversight, better coordination of existing programs, and limited pilot programs can help us find innovative, cost-effective ways to produce and prevent obesity, which will translate into a reduction in death and premature death.

I do appreciate the Bush Administration's commitment to making improvements in this area. I applaud Secretary Thompson's personal commitment to reducing the incidence of overweight and obesity. As we finished an annual road race here about 3 weeks ago, I mentioned to him what we were going to be doing in terms of addressing the issue of obesity and had the opportunity to thank him, but it also imprinted in my mind the importance of having somebody like him out there, running, watching his own weight, watching his own diet, as a real model for us all.

Today we have made available a summary of the draft legislation that we are working on, that Senator Bingaman mentioned, along with Senators Dodd, Collins, Stevens, and many others. I think today's hearing will help us refine that legislation with what we hear.

We do plan to introduce bipartisan legislation in the near future, probably right after the upcoming Memorial Day recess.

In addition, we plan to ask the GAO to look at the way that nutrition and physical activity programs are organized throughout the Federal Government and to suggest ways that coordination and effectiveness could be improved.

Legislation can go a long way, yet we cannot change the trends of the past two decades through laws and legislation alone. The Government does not have all the answers. The private sector has a crucial role to play. The food and restaurant industries have demonstrated significant leadership. Already we are seeing an increasing number of advertisements for fast food restaurants touting healthier options. All of us have seen that change over the last cou-

ple of years. One national chain has designed its entire advertising strategy around its low-fat menu options.

There will be new collaborative efforts which we will promote in the legislation between the Government and the private sectors so that Americans do have better information and are equipped to make those healthier choices. We need to avoid stigmatizing or demonizing any one sector of society and to build on a coalition of public and private interest to begin to address this problem on multiple fronts.

Mr. Chairman, I thank you for holding this hearing and look forward to working with you and others on this committee as we address a problem which has now reached epidemic proportions.

Senator BINGAMAN. Thank you very much, Senator Frist.

We have three panels this afternoon. Our first panel consists of Dr. William Dietz, who is Director of the Division of Nutrition and Physical Activity in the National Center for Chronic Disease Prevention and Health Promotion at the Centers for Disease Control.

Dr. Dietz has been a leader in examining the causes and consequences of obesity, particularly among children. We welcome you as a witness today, and we are anxious to hear whatever you can tell us about how to solve this problem.

Please take a few minutes and summarize your testimony if you would, and we will include your entire written statement in the record.

STATEMENT OF WILLIAM H. DIETZ, M.D., DIRECTOR, DIVISION OF NUTRITION AND PHYSICAL ACTIVITY, NATIONAL CENTER FOR CHRONIC DISEASE PREVENTION AND HEALTH PROMOTION, CENTERS FOR DISEASE CONTROL AND PREVENTION, U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Dr. DIETZ. Thank you, Senator Bingaman, Senator Frist.

It is a great honor and pleasure to be here, and thank you for inviting me to comment on this important problem.

I can do little to improve on the epidemiology which you have summarized so well, but I just want to expand on a couple of points.

First, 8 million children and teenagers in the United States are now overweight.

Second, although childhood obesity only accounts for about one-quarter of adult obesity, childhood-onset obesity in obese adults tends to be more severe, so it exerts a disproportionate contribution to morbidity and mortality.

Even so, 60 percent of overweight children have at least one additional cardiovascular disease risk factor, and 25 percent have two or more.

As you pointed out, we have already begun to see the impact of childhood obesity on disease. Type II diabetes, a disease previously limited only to adults, now accounts for as much as 50 percent of new cases of diabetes in some communities.

We pointed out in an article last week that hospitalization rates for overweight children have tripled over the last 30 years. And as you pointed out, in adults, obesity accounts for 300,000 deaths annually, second only to tobacco-related deaths.

Last year, the Surgeon General's report suggested that obesity and its complications were already costing $117 billion annually. The rapid increases in obesity across the population suggest that these costs are only going to increase.

The CDC has made efforts to develop effective prevention and treatment strategies through our State programs, State-coordinated school health programs, and applied research agenda to develop and refine new approaches and partnerships with other organizations.

Currently, the CDC funds 12 States to prevent and reduce obesity and its related chronic diseases through policy and environmental changes. Most of the State programs have focused on youth, and with a modest increase in funds this year, some States will begin to fund community programs.

For example, CDC funds the North Carolina Healthy Weight Initiative which involves communities in a Statewide task force comprised of community leaders and health professionals. The CDC-funded program is a curriculum for 4- and 5-year-olds called "Color Me Healthy," which focuses on eating healthy and being active and is being implemented in 71 counties through cooperative extension and WIC. States could clearly do more.

One of the most efficient means of impacting the greatest numbers of children and adolescents and shaping our Nation's future health is through school health programs. The CDC through its coordinated school health programs reaches students in elementary and secondary schools during their formative years, when many health habits are formed.

CDC and coordinated school health programs are working to increase physical activity and improve nutrition among our Nation's young people. While we currently fund 20 State-coordinated school health programs, much more must be done to establish healthy eating and physical activity patterns in young people.

At least four behavior change strategies are currently justified to reduce obesity and the chronic diseases associated with it. These include the promotion of breast feeding and efforts to increase its duration; reduced television viewing in children and adolescents; increased fruit and vegetable consumption, and increased physical activity for the population. Because of time constraints, I will only focus on physical activity.

Increased physical activity prevents weight gain, maintains weight after weight loss, and reduces many of the comorbidities associated with obesity such as hypertension and diabetes.

In addition, physical activity may also displace other health risk behaviors in youth. In fiscal year 2001, Congress appropriated $125 million to develop the CDC Youth Media Campaign which will be launched in June. The campaign will be directed at 9- to 13-year-olds, and we use the best principles of marketing and communication to get children excited about increasing the amount of physical activity in their lives and helping their parents see the importance of physical activity to the overall health of their children.

We also for the first time have six evidence-based strategies around the promotion of physical activity that we are beginning to incorporate into State programs. These approaches represent strategies that we can pursue today while we do the research necessary

to identify additional effective prevention approaches for States and communities.

In summary, obesity in the United States is epidemic. The consequent increase in diabetes and other diseases caused by obesity are likely to break the health care bank. Although CDC programs and strategies have started to address obesity, we have only begun. We must invest in comprehensive nutrition and physical activity approaches that link changes in families, schools, worksites and health care settings to successfully halt this epidemic.

Thank you, Mr. Chairman.

[The prepared statement of Dr. Dietz follows:]

PREPARED STATEMENT OF WILLIAM H. DIETZ, M.D.

Good morning. I am Dr. William Dietz, Director of the Division of Nutrition and Physical Activity at Centers for Disease Control and Prevention. I am pleased to be here today to participate in this important discussion of the obesity epidemic.

BURDEN OF OBESITY

The burden placed on our society by obesity and related chronic diseases is enormous. In the last 20 years, obesity rates have increased by more than 60 percent in adults. Since 1980, rates have doubled in children and tripled in adolescents. More than 25 percent of the adult population in the United States is obese, or approximately 50 million adults. Almost 15 percent of our children and adolescents are overweight, or approximately eight million youth. Rates of obesity have increased more rapidly among African Americans and Mexican Americans than among Caucasians. Obesity in the United States is truly epidemic.

We have already begun to see the impact of the obesity epidemic on other diseases. For example, Type II diabetes, a major consequence of obesity, also has increased rapidly over the last 10 years. Although Type II diabetes was virtually unknown in children and adolescents 10 years ago, it now accounts for almost 50 percent of new cases of diabetes in some communities. Obesity is also a major contributor to heart disease, arthritis, and some types of cancer. Recent estimates suggest that obesity accounts for 300,000 deaths annually, second only to tobacco related deaths.

The contribution of childhood onset obesity to adult disease is even more worrisome. Although onset of obesity in childhood only accounts for 25 percent of adult obesity, obese adults who were overweight children have much more severe obesity than adults, who became obese in adulthood. Sixty percent of overweight children have at least one additional cardiovascular disease risk factor, and 25 percent have two or more. Hospitalization rates for the complications of obesity in children and adolescents have tripled.

The combination of chronic disease death and disability accounts for roughly 75 percent of the $1.3 trillion spent on health care each year in the United States. Last year, the Surgeon General's Call to Action on Obesity suggested that obesity and its complications were already costing the Nation $117 billion annually. By way of comparison, obesity has roughly the same association with chronic health conditions as does 20 years of aging, and the costs of obesity were recently estimated to exceed the health care costs of smoking and problem drinking.

The rapid increases in obesity across the population and the burden of costly diseases that accompany obesity indicate that we should not ignore. The rapidity with which obesity has increased can only be explained by changes in the environment that have modified calorie intake and energy expenditure. Fast food consumption now accounts for more than 40 percent of a family's budget spent on food. Soft drink consumption supplies the average teenager with over 10 percent of their daily caloric intake. The variety of foods available has multiplied, and portion size has increased dramatically. Fewer children walk to school, and the lack of central shopping areas in our communities means that we make fewer trips on foot than we did 20 years ago. Hectic work and family schedules allow little time for physical activity. Schools struggling to improve academic achievement are dropping physical education and assigning more homework, which leaves less time for sports and physical activity. Television viewing has increased. Neighborhoods can be unsafe for walking, and parks may be unsafe for playing. Many office buildings tend to have inaccessible and uninviting stairwells that are seldom used, and many communities are built without sidewalks or bike trails to support physical activity.

PUBLIC HEALTH APPROACH

Given the size of the population that we are trying to reach, we cannot rely solely upon individual interventions that target one person at a time. Instead, the prevention of obesity will require coordinated policy and environmental changes that affect large populations simultaneously. The CDC has made efforts to develop effective prevention and treatment strategies through our State obesity programs, State coordinated school health programs, partnerships with other organizations, and an applied research agenda to develop and refine new approaches.

A COORDINATED STRATEGY TO ADDRESS THE OBESITY EPIDEMIC

Currently CDC funds 12 States to prevent and reduce obesity and its chronic related diseases. Our support permits States to develop and test nutrition and physical activity interventions to prevent obesity through strategies that focus on policy-level changes (e.g., States assess and rate childcare centers for nutrition and active play) or a supportive environment (e.g., competitive pricing of fruits and vegetables in school cafeterias). Examples of these approaches can be illustrated by the experience in three States.

In Massachusetts, The National Institutes of Health (NIH) funded a school-based obesity curriculum known as Planet Health. This curriculum, which integrated reduced fat, increased fruit and vegetable intake, increased physical activity, and reduced television, messages in science, math, language and social studies classes significantly reduced obesity in adolescent girls. The CDC is now supporting the expansion of this program into public, charter, and parochial school systems in Boston.

The State of Rhode Island has selected racial and ethnic minority children enrolled in public elementary schools as the target for lifelong healthy eating and physical activity behaviors to promote healthy weight, based on the CDC guidelines for school health, which were developed with input from the Department of Education. After surveying half of all elementary schools (including all schools with at least 25 percent or more Hispanic enrollment) to assess existing nutrition and physical activity programs, policies, and environmental supports in schools, the State is developing a systems-level, nutrition and physical activity intervention that will increase the number of environmental and policy supports in schools based upon the CDC guidelines for school health programs to promote lifelong physical activity and healthy eating. Selected communities with schools where at least 40 percent of the students are Hispanic/Latino and 50 percent or more of the student population is eligible for free or reduced lunch programs will be involved in the program beginning in September. Each school will tailor intervention components to fit with their school structure and population while maintaining a common purpose and shared activities across schools. Program expectations include goals for student consumption of fruits and vegetables to five daily servings and participation in moderate physical activity for 30 minutes at least five times a week.

The North Carolina Healthy Weight Initiative has involved communities and an energetic statewide task force comprised of community leaders and health professionals. The group has developed a curriculum known as "Color Me Healthy" for 4- and 5-year-olds that focuses on interactive, innovative learning opportunities on eating healthy and being active. Through an innovative collaboration with the U.S. Department of Agriculture (USDA), implementation of "Color Me Healthy" is underway in 71 counties through cooperative extension and the Special Supplemental Nutrition Program for Women, Infants and Children (WIC). These programs help illustrate how CDC-funded programs translate research findings into practice, and integrate HHS activities with those of other departments.

In addition to the collaboration with State health departments, CDC also funds 20 State educational agencies through the Coordinated School Health Program. This program reaches students in elementary and secondary schools and strives to increase physical activity and improve the nutrition among our Nation's young people. Through this program, the CDC awards competitive grants to State, tribal, and territorial educational agencies to:

Plan, implement, and evaluate programs, including curricula, to promote a healthy lifestyle, including programs that increase physical activity and improve the nutrition of the students at elementary and secondary schools;

Provide education and training to education professionals, including physical education, health education, and food service professionals, in State and local educational agencies; monitor youth lifestyle behaviors and/or programs to influence them; develop and implement policies to support effective implementation of school health programs at the local level; and build effective partnerships with other Government agencies and non-governmental organizations to support effective implementation of school health programs.

Examples of these approaches can be illustrated by the experience in three States. West Virginia has adopted one of the strongest standards in the Nation for school nutrition. The West Virginia Board of Education prohibits the sale or serving of the following foods at school: chewing gum, flavored ice bars, and candy bars; foods or drinks containing 40 percent or more, by weight, of sugar or other sweeteners; juice or juice products containing less than 20 percent real fruit or vegetable juice; and food(s) with more than eight grams of fat per one-ounce serving. At elementary and middle schools, soft drinks are prohibited. In addition to implementing effective policies, the West Virginia Department of Education Office of Healthy Schools collaborated with the Office of Child Nutrition and the West Virginia Nutrition Coalition plan and delivered a week-long nutrition symposium for school food service, health education, and school health services professionals. These programs impact more than 300,000 students in a State where over 25 percent of the children ages 5-17 live in poverty.

In California, the State has focused on collaborative efforts. The California Department of Education serves a population exceeding six million students, and 63 percent of these students identify themselves as a minority (42 percent Hispanic, 11 percent Asian Pacific, 9 percent African American, and 1 percent American Indian/Alaskan Native). To support collaborative efforts in California, the State's Department of Education and Department of Health Services formed a joint effort called School Health Connections (SHC). SHC coordinates funding, policies, and programs within both agencies and with local school districts and health departments. SHC accomplishments include:

Collaboration with partners, leading to the passage of legislation which establishes nutrition standards for food sold in elementary schools, prohibits the sale of carbonated beverages in middle schools, until 30 minutes after lunch is served, requires schools to post State and local laws and policies related to nutrition and physical activity, and establishes a pilot program for middle and high schools to implement nutrition standards; the inclusion of health in new statewide standards for teacher training; added physical fitness test results to local school districts' accountability report cards; provided training in school health, including CDC's School Health Index, reaching approximately 1200 parents and professionals in the fields of education, public health, and school health; and obtained $6 million for school outreach for Healthy Families and Medi-Cal for Families.

Finally, the Wisconsin Department of Public Instruction (DPI), in collaboration with several University of Wisconsin departments, instituted an annual Best Practices in Physical Activity and Health Education Symposium. This two-day staff development experience for teachers showcases exemplary school-based physical activity, physical education, and health education. Information and resources on physical education and health education, including health literacy assessment tools, were provided to all 426 school districts to guide program improvement. In addition, all Wisconsin school districts received nutrition education information and training opportunities. More than 3,200 staff were trained on the Dietary Guidelines for Americans 2000, the importance of a good breakfast, and the relationship of nutrition to learning.

CDC's coordinated school health program enables State departments of education and health to work together efficiently, respond to changing health priorities, and effectively use limited resources to meet a wide range of health needs among the State's school-aged population.

PARTNERSHIPS

National or State programs alone will not succeed unless they are supported by a wide array of partnerships. Nutrition and physical activity programs must be integrated across other CDC funded State programs aimed at cancer, diabetes, and cardiovascular disease. In addition, as the North Carolina program emphasizes, nutrition and physical activity programs must be linked to other departments, such as the USDA. Groups that share concerns about the impact of obesity on other diseases, such as the American Heart Association and the American Cancer Society are natural allies in obesity prevention efforts. For example, the CDC is exploring joint training activities with the American Cancer Society around nutrition and physical activity strategies within States.

PRIORITY STRATEGIES

At least four behavior change strategies appear justified by the current State of our knowledge. These include the development of sophisticated marketing messages designed to increase health behaviors among youth, the promotion of breast feeding and efforts to increase its duration, reduced television viewing in children and ado-

lescents, and increased physical activity for the population. In FY2001, Congress appropriated $125 million to develop and launch the CDC Youth Media Campaign using the same strategies used by commercial marketers to reach our target audience of 9-13 year olds. The campaign will use the best principles of marketing and communications to deliver important messages to young people about the importance of building healthy habits early in life with the full knowledge that today's youth are very savvy about the messages they receive. The Youth Media Campaign will be launched in June of 2002 with the focus on getting kids excited about increasing the amount of physical activity in their lives, and helping their parents to see the importance of physical activity to the overall health of their kids.

Breast feeding is unquestionably the most appropriate form of feeding for most infants, and clearly reduces the incidence of acute diseases of infancy and early childhood. Recent studies of breast-feeding indicate that children who are breast-fed appear to have a reduced risk of obesity later in life. Nonetheless, only 64 percent of new mothers initiate breast feeding, and only about 29 percent have continued breast feeding six months after birth. A major research objective is to understand how to increase breast feeding rates and duration through strategies such as spouse support or worksite modifications that permit mothers to continue to feed their children breast milk after they return to work.

The prevalence of obesity has been directly related to the amount of time children and adolescents watch television, and therefore reducing television time appears to be an effective strategy to treat and prevent obesity. Nonetheless, incentives for parents to reduce the amount of time their children watch television must still be identified. Some research suggests that parental concerns about televised violence or sexuality may be more persuasive reasons than obesity prevention to control children's television time.

Increased physical activity for overweight patients reduces many of the comorbidities associated with obesity such as hypertension, hyperlipidemia, and glucose tolerance. We now have six evidence based strategies around the promotion of physical activity. These include recommendations for physical education programs in schools, promotion of stairwell use, access and promotion of recreation facilities, social supports for physical activity, individually adapted behavior change, and community-wide campaigns.

Medical approaches are an integral part of the battle against the bulge. When 25 percent of adults are affected with obesity, the effective translation of proven strategies into approaches that can be used in primary care settings must become a high priority. We recently calculated what it would cost if all obese Americans were started on one of the two available drugs for the treatment of obesity. The costs of drug therapy were approximately the same as the direct costs of obesity. This observation indicates that conventional medical therapy for the treatment of obesity is extremely expensive. However, last year an NIH clinical trial demonstrated that diet, exercise, and modest weight loss decreased the incidence of diabetes by almost 60 percent—a far greater improvement than the pharmaceutical therapy in the comparison group. These results emphasize the importance of lifestyle modification in the treatment of prediabetes. We are currently working with several managed care organizations to begin the process of translating these approaches into strategies that can be used in primary care. In a meeting to be held this summer, we will begin the process of identifying simple and effective counseling techniques that can be used by physicians, nurse practitioners and nutritionists to help obese patients. Evaluation of these approaches will be critical.

In summary, this hearing could not have come at a more opportune time. Obesity in the United States is epidemic. The diseases caused by obesity like diabetes have also begun to increase, and are already adding to health care costs. CDC programs have begun to address the problem of obesity, but are small and just beginning. Nonetheless, comprehensive nutrition and physical activity approaches to prevent and treat obesity appear the most cost-effective strategy to reduce obesity and its complications.

Thank you for the opportunity to talk about this very critical issue. I would be happy to answer any questions the Committee may have.

Senator BINGAMAN. Thank you very much.

You do indicate that we need a comprehensive approach, and I certainly agree with that. Let me go on and read another couple of sentences from the letter that Cindy Anderson, the substitute teacher from Albuquerque wrote me. She says: "I wonder if it could not improve student achievement, not to mention behavior and disease risk, simply by not allowing the sale of candy, soda, and other

empty-calory foods in our schools. It seems so silly to spend time teaching our kids about nutrition and then not provide nutritious foods for them."

You are funding a bunch of initiatives around the country to teach kids about nutrition as I understand it. Are you doing anything with regard to the actual providing of nutritious foods at schools?

Dr. DIETZ. That is not the role of the CDC, but we are very interested in alternative strategies around the provision of nutritious foods in school lunch lines. For example, we recently became part of a memo of understanding between USDA and HHS around the promotion of fruits and vegetables in lunch lines, and it has already been shown that reducing the price of fresh fruits and vegetables increases consumption. What we are trying to look for are sustainable strategies such as increasing the prices on less healthful items in the lunch line, thereby sustaining subsidies on fruits and vegetables. That is one alternative to making other choices available to children and teenagers.

Senator BINGAMAN. The idea of funding a lot of these State initiatives is, as I understand it—and I have always thought—not just in this area, but in all areas, is to figure out which strategies work and then replicate them around the country.

How far are we from knowing which of these strategies work and being in a position to say this should be a national program, or this should be something that every State implements, or whatever?

Dr. DIETZ. With respect to our State programs, I think we are still several years away from knowing whether the strategies which States have initiated are going to be effective or not. We have set them up in such a way that they have employed a very careful design; they have often partnered with universities or prevention research centers and schools of public health, and in order to not only design the best program but employ a very careful evaluation to determine whether it works or not.

But as I said, I think we do have four strategies which we can employ today. They are the promotion of breast feeding, reduction in television time, increase in fruit and vegetable consumption, and increases in physical activity. I think we have the best data around physical activity, where we know that there are evidence-based recommendations that suggest that increases in physical education programs in schools will increase rates of physical activity and thereby reduce many of the obesity-associated comorbidities.

Senator BINGAMAN. I guess I am still not clear as to—now that we know that exercise is something that we should be promoting in our schools, what is the extent of the effort that is being made either by the CDC or by Health and Human Services more generally or by anyone else, any of the other Federal agencies, to actually bring this about? Are resources being provided? I know that we have the PEP bill, but I do not know how many States that is getting into, how many kids are actually being allowed or encouraged to participate in physical activity because of that funding.

Dr. DIETZ. I cannot supply you with those data, although I think we could probably come up with them from the Department of Education or others who are here in the room testifying later.

I think that the CDC cannot make schools change, nor do I think the Federal Government can. Schools are locally controlled, as you know. I think our job is to provide schools and communities with the best evidence, the best suggestions that we know, and rely on them to take those suggestions forward.

Senator BINGAMAN. So you think that providing the suggestions is probably the extent of what we can do, rather than providing any resources?

Mr. DIETZ. If we were to give resources directly to communities, I would be concerned that those communities utilize those resources in such a way that they can learn from what they do, because my concern about throwing money at a problem without an evaluation is that we are going to spend a lot of money, and at the end of that, we are not going to have any better idea of what works or what doesn't than when we started.

One of the reasons that I have chosen to emphasize State programs is that I think funds for communities channelled through State programs at least assures that the communities will have the best recommendations that we know of programs that work and can couple those with an evaluation to determine which of those programs are effective, and those can then be disseminated to other communities.

Senator BINGAMAN. You did refer, I believe, to six evidence-based strategies for increasing physical activity.

Dr. DIETZ. Correct.

Senator BINGAMAN. And presumably those are six evidence-based strategies, each of which is recommended?

Dr. DIETZ. Yes.

Senator BINGAMAN. So that we have six ways in which we know that schools can deal with this problem if they will just do it.

Dr. DIETZ. Those recommendations were not limited to schools. I cited the physical education recommendation as most applicable to schools. Promotion of stairwell use is one of those strategies. This is a ready made opportunity for physical activity to walk up and down stairs. Stairs are rarely in a convenient place and are rarely attractive.

Access and promotion of recreational facilities is another recommended strategy which suggests the importance of partnerships with groups like the park and recreation department; social supports for physical activity; individually adapted behavior change, which is more of a clinical strategy; and community-wide campaigns to promote physical activity.

What we do not yet have is a clear understanding of how to translate those effectively into community-based programs.

Senator BINGAMAN. Okay. Let me defer to my colleagues. Both Senator Reed and Senator Dodd are very focused on this set of issues and are working with us on this legislation.

Let me call on Senator Reed since he arrived first.

Senator REED. Thank you very much, Mr. Chairman, and thank you for holding this hearing.

This is a vitally important topic, and CDC has taken a leadership role, and I thank you, Dr. Dietz, for your efforts.

The Children's Health Act of 2000 incorporated some provisions that I suggested with respect to a competitive grant program for

CDC that could be used for intervention models and prevention strategies for obesity; it could be used in terms of applied research, public education, provider education and training.

I realize that all of these provisions are not under your auspices, but could you give an outline of the implementation to date of the Children's Health Act?

Dr. DIETZ. The Children's Health Act has not directly impacted our programs, but as I said earlier, we are funding 12 States now, and those States have principally focused on youth. Rhode island is one of those States, as you know. They are adopting a variety of strategies. Some are using a WIC-based approach. Some are targeting African American or other minority youth. I believe Rhode Island is using a WIC-based approach, as well as North Carolina.

I think the importance of those programs is that they be designed in such a way that we know clearly what the target audience is, and we have good pre and post measures to evaluate which of those programs is effective, and those can then be expanded.

I think that is not the question that you asked. You are asking about the Children's Health Act, which has not, as I said, impacted on our programs.

Senator REED. But you deduced my second question, which is how well we are doing in Rhode Island, one of your 12 States, and I thank you for your response.

I notice that in conjunction with your efforts, the budget proposed for the CDC Center for Chronic Disease Prevention and Health Promotion is going to be proposed to be reduced by 8 percent, less than the fiscal year 2002 funding level. Could you describe how that reduction would impact on the efforts that you just talked about and others?

Dr. DIETZ. I think the reduction applies almost exclusively to the Youth Media Campaign. That is currently funded at about $68.5 million in the 2002 budget and has been eliminated from the 2003 budget.

Senator REED. I presume that when it was included in previous budgets, there was some logic to do that, that there was some data or at least instinct that it would be good to tell youngsters not to eat certain things, and certainly, since there is such a constant barrage of what to eat from every fast food restaurant in America, do you have any thoughts about the reduction or elimination of this program?

Dr. DIETZ. I think the Youth Media Campaign is a unique attempt to influence physical activity behaviors of children. As you know, when Congressman Porter introduced that legislation, it was with the intent of displacing other high-risk behaviors like sexual behavior, drug use, alcohol use, and tobacco use. The choice of physical activity I think is a sound one—physical activity and other activities—particularly those that children, in this case, 9- to 13-year-olds, participate in after school, because that is when these other high-risk behaviors begin.

I think that to know clearly whether that program is effective or not is going to require 3 to 5 years of work. The program will only come out, or the media delivery will only be at the end of June, and I think there are enough funds in it for media buys for a year.

The expectation is that that may well change attitudes but will not likely change behavior because it is such a short run.

Senator REED. Thank you.

Thank you, Mr. Chairman.

Senator BINGAMAN. Thank you, Senator Reed.

Senator Frist.

Senator FRIST. Thank you, Mr. Chairman.

Dr. Dietz, CDC has gained a great deal of experience working with States and communities over the years on the issue of improved nutrition and physical activity, and on the charts that I showed, it was "nutrition/activity" in essence. I know you mentioned a little bit about this, but what do you think are the key components or elements of an effective program, and as we put together legislation or a Federal model and program, specific things like provider training and education—again, you mentioned it a little bit—designing environments to allow increased activities in terms of physical education or just physical activity and the right sort of environment, and also, physical education and nutrition education actually in school, in terms of what you are actually exposed to.

Dr. DIETZ. I think there are several important elements of a comprehensive program. One is that there has to be a repository of expertise related to nutrition and physical activity. Those I do not think are the same person in States. I think that somebody with physical activity expertise is not likely to share nutrition expertise.

Second, the program needs to be integrated. As you know, we are funding a number of categorical programs like cancer, cardiovascular disease, and diabetes. Nutrition and physical activity strategies to prevent obesity will also influence those other chronic diseases. So that part of a comprehensive program is a physical activity and nutrition strategy that is cross-cutting and engages the secondary prevention efforts that those categorical diseases are already involved in.

Third, there needs to be integration across agencies. For example, the USDA EFNEP program and the USDA WIC program all need to be linked into preventive efforts because they address particularly vulnerable populations, and it is unlikely and needless for HHS programs to replicate the tremendous job of education that a program like EFNEP does. But if we do not link to those programs, we are going to miss an opportunity.

Third, there need to be partnerships with other organizations within States, like the American Cancer Society, like the American Heart Association, which have a vested interest in the prevention of obesity and its consequences.

Fourth, I think there need to be strategies that explore what works. We have already talked about that briefly. My model for that would be funding going through State programs to communities where small amounts of funding can make an enormous difference in getting programs off the ground. My concern is that those State-based programs be coupled with a good evaluation effort so that we learn what works, so that those communities themselves can learn what works.

Fifth, I think we need a stronger science base. The strategies I mentioned—physical activity, breast feeding, reduction in TV

time—are probably just the beginning of those strategies. They will significantly impact the problem, but it is not going to eliminate it. And there is a wide range of applied research that needs to be done and augmented by survey work.

For example, several recent focus group studies have demonstrated that parents do not define obesity by where a child fits on the growth chart. That is very perplexing to primary care providers, because if they cannot point out where a child fits on the growth chart and say to a parent, "This is a problem," and the parent says, "What are you talking about? This is not a problem," then, we have a problem. What is the language that we use?

It turns out that parents do not define being overweight as a problem unless where the child fits on a growth chart has an adverse impact on the child's self-esteem.

So I think there is a lot of work that needs to be done around the language that we use to talk to parents about their child's weight problem. I also think that for the vast majority of parents, overweight is considered a cosmetic issue, not a health issue. That conversation has to change.

Senator FRIST. Has my time expired, Mr. Chairman.

Senator BINGAMAN. Well, we do not have the timer on. Why don't you go ahead with another question?

Senator FRIST. Thank you.

Very briefly—and I appreciate the comprehensive nature of your last answer—extending from the parents' view of what obesity is, this committee deals with a lot of public health issues broadly, and public health people think of all sorts of things, like infectious disease—infectious disease, people can relate to—when we think of obesity being a public health issue, it takes some explaining, and part of the reason might be that many people view being overweight or obese as a matter of personal choice. It may affect one individual because of certain behavior, but it does not affect other people.

Could you respond to that?

Dr. DIETZ. Sure. I think that to a certain extent, that is true. While we focus on the prevention of obesity in the majority of population, we cannot neglect the 25 percent of adults and 15 percent of children and teenagers who are already overweight.

One of the things that we are doing this summer is convening a conference with Kaiser Permanente to look at how to translate the efficacious recommendations that came out of the NHLBI Report on the Assessment and Treatment of Obesity into practical approaches that can be used in primary care.

We are doing something similar around the prevention of obesity in children through a collaborative project with the American Academy of Pediatrics and the American Dietetic Association to try to prevent the development of obesity in young children, 3- to 7-year-olds, through a focus on the division of responsibility between parents and children around food choices and the limitation of television time to one to 2 hours per day.

I think you are absolutely right that clinical strategies do have to focus on those issues, and what I think we need the most are approaches which make physicians feel more effective when they are confronted with an overweight patient.

Senator FRIST. Thank you.
Thank you, Mr. Chairman.
Senator BINGAMAN. Thank you very much.
Senator Dodd.

OPENING STATEMENT OF SENATOR DODD

Senator DODD. Thank you very much, Mr. Chairman, and let me begin by thanking you for holding this hearing, and Senator Frist and Senator Reed for their support of this.

This is a very, very important issue, and it is getting some attention in the last little bit, but it really deserves much, much more. I want to begin by thanking you for doing this.

I was stunned to read the statistics on the number of children, the number of adults, the number of deaths, and the costs associated with this. On Senator Frist's last point, talking about this being a matter of choice—there may be choice, but there are tremendous effects that we all pay for as a result of these decisions, so beyond just the individual effects, obviously, there are effects that go far beyond that.

We are going to introduce shortly—Senator Bingaman may have raised this before I came in—Senator Bingaman and Senator Frist are the lead sponsors and I am a supporter of their efforts on the Improved Nutrition and Physical Activity Act, the IMPACT bill which I am sure you have already addressed.

We focus on children. The piece that I added was on the children, because the numbers just stun me, when we start talking about a tripling of this problem in the last decade—or is it two decades?

Dr. DIETZ. Twenty years.

Senator DODD. Twenty years. I was stunned to see the amount of activity—let me just focus on the activity side of this, even though the diet issue deserves attention—I was stunned to see that in the last 10 years, I believe, we saw the number of children involved in activities went from 42 percent to 29 percent, and the trend lines continue to go down.

What is going on here? Why is this happening? Have you analyzed what is going on in schools? Are school budgets such that they are cutting back on after-school athletic programs and during the day? Is that a feature of this? Are schools reducing significantly the amount of physical activities that were normally part of the curriculum at the elementary and secondary levels?

Dr. DIETZ. I think that physical activity around schools has declined in two ways. The numbers that you are citing have to do with the physical education programs offered by schools, which amount to 42 percent of schools in 1991 and declined to 29 percent of schools by 1999.

Senator DODD. Is this a budgetary—have you analyzed this?

Dr. DIETZ. Well, we do not have terrific data, but on an anecdotal basis—and I think this is a pretty widespread anecdote—most schools have reduced P.E. programs because of cost and the need to meet performance standards, and that P.E. is seen as a luxury, one which detracts from school performance.

I think a clear research need is to demonstrate that physical activity has an impact on both classroom behavior and performance. That is something that we do not know.

Senator DODD. We know it has an effect on the other behaviors—smoking, drugs, and the like—isn't that true?

Dr. DIETZ. That is true. Those adverse risk behaviors cluster. But the other factor which has influenced physical activity around schools is that today, far fewer children walk to school. In part, that is a consequence of community design, and in part, it reflects perceptions of neighborhood safety.

In fact, when I talk to audiences around the country, 90 percent of those audiences walked to school when they were children, and only about 20 percent of their children and grandchildren walk to school.

So not only have schools eliminated their physical education programs, but the opportunities to include physical activity as part of a child's day have also diminished.

Senator DODD. Have you looked over the children-specific provisions of the proposed legislation that we are offering?

Dr. DIETZ. I am not permitted to comment on legislation; I am sorry. I have looked it over.

Senator DODD. Do you want to just give me a little wink or something?

[Laughter.]

Dr. DIETZ. I thought that was what I did.

Senator DODD. Okay. I will take that as a wink. I appreciate it very much.

We just passed the Elementary and Secondary Education Act; in fact, we were involved in it in this committee. Correct me if I am wrong, Bill, but I do not think we did anything on this particular aspect.

Tell me about these contracts that schools have with some of our producers of less-than-nutritional-value products. Is this a growing problem, where, to get exclusive rights, you give schools a check for a certain amount if they will give you exclusivity to some of these products, and you also have to agree to have them available to the kids during the school day. Tell us about some of those contracts.

Dr. DIETZ. I think that what you are describing is euphemistically called a "pouring contract," which is an exclusive contract with a soft drink company to stock vending machines. That is an increasingly widespread practice that is driven by schools' need for financial resources. They play a very important role in keeping schools afloat as the tax base for schools has diminished.

So my professional opinion is that I would not agree that those vending machines should be replaced in schools unless the financial support can be replaced. But that does not mean that all the choices in those machines have to be—

Senator DODD. What does a contract amount to? Can you give me a typical—

Dr. DIETZ. I do not actually know what a typical contract is. I was reading something the other day that suggested that a town outside Atlanta signed a contract over a 5-year period for $200,000, or an income of about $40,000 to $50,000 a year. That pays for things like scoreboards, things that a school board might not choose to fund.

But in any case, the vending machines need not be all negative. For example, we know from our experience and a study that we are funding that if those vending machines are stocked with healthful products, kids will buy them, and that maintains the bottom line while allowing healthful alternatives like flavored milk or even water as something in a vending machine offers a positive alternative for children and still maintains the level of financial support that schools need.

Senator DODD. And your concern is that the nutritional value of these products is substantially lacking.

Dr. DIETZ. But it need not be so.

Senator DODD. Yes. There was a piece by Tim Eagan in the *New York Times* yesterday or the day before—did you see that?

Dr. DIETZ. Yes, I did.

Senator DODD. Do you agree with the conclusions in that story?

Dr. DIETZ. I thought the principal conclusion was that trial lawyers were moving on to prosecute food rather than tobacco, and I did not agree with that. But perhaps you could remind me of the other points.

Senator DODD. They talked about what goes on in the schools, and they cited lunch time at Fremont High, the largest school district in the Nation to enact a statewide ban on junk food. In fact, the two biggest States, Texas and California, are moving toward phasing out junk food in schools.

What you are suggesting is that there might be an alternative here, and that is to eliminate junk food but provide them vending opportunities with more nutritional products.

Dr. DIETZ. Provide choices, and there are strategic ways to increase consumption of the healthful choices by competitive pricing, for example.

The other conclusion that I remember that that article reached was that if adolescents cannot find what they want in schools, they can leave the open campus and go to the ring of fast food chains that generally surround many of those high schools.

So I think that it is not a simple solution, but schools could do a better job in offering more healthful alternatives and pricing them competitively.

Senator DODD. Or, of course, alternatively, we could come up with better funding schemes to help schools so they do not have do this in the first place.

Dr. DIETZ. Absolutely.

Senator DODD. Thank you, Mr. Chairman.

Senator BINGAMAN. Thank you very much.

We have a vote that has already started, so we will need to adjourn before we start with Panel 2.

Does any Senator have one additional question to put to Dr. Dietz before we recess?

[No response.]

Senator BINGAMAN. If not, let us take about a 10-minute break, and we will resume with Panel 2.

Thank you very much.

[Recess.]

Senator BINGAMAN. The hearing will resume.

I am sure some other Senators will be coming back in a few minutes, but to move this along, we will go ahead with our second panel.

Our witness on this panel is Ms. Denise Austin, who is nationally known and respected as an expert in fitness. She offers expert advice and has hosted her own television show on physical fitness for the past two decades, and she is also a tremendous example for the rest of us to follow in physical fitness.

It is a pleasure to have you here. Thank you very much for coming.

Please go right ahead.

STATEMENT OF DENISE AUSTIN, ON BEHALF OF P.E.4LIFE, ACCOMPANIED BY ANN FLANNERY, EXECUTIVE DIRECTOR, P.E.4LIFE

Ms. AUSTIN. Thank you. Mr. Chairman and distinguished Members of the committee, I thank you for the opportunity to talk about the role that exercise and fitness play in the healthy development of our children.

Joining me today is Ann Flannery, who is Executive Director of P.E.4Life.

I am here to talk about physical education in the schools. I am a mom. I have my degree in physical education, and I have been in the fitness industry for 23 years. I travel to schools all over the Nation, giving lectures, trying to motivate kids to get in better shape. And I have physically seen these kids who are so out of shape they cannot even run a lap. So I am here to help promote physical education in the schools, and I truly believe that if we can get kids doing physical education three to five times a week, a lot of these problems will be diminished.

As you can tell, so many of the budget cuts happened about 14 to 16 years ago, and this is when the decline began.

I receive about 2,000 letters and emails each week from moms all over the country, because I am a mom, and I can relate. They ask me, Denise, what can I do—my child is overweight, or my grand-daughter is overweight—what can I do?

The first thing I tell people is to find out how many days a week they have in physical education. Ask your children. I ask my kids, "How many days a week do you have?" I make sure that they have at least 3 days a week of physical education. That way, I know that they are physically active while they are at school.

Also, of course, as a mom, you do have to instill in them a healthy lifestyle when they get home, do some activities, too. But my goal for everybody is to have healthy, happy children and make sure they get exercise in three to five times as week.

A lot of mothers tell me, "Denise, I asked my daughter, and she said she only gets physical education once a week. What do I do?" That is why I am here.

Our joint passion to fight obesity and reverse the lack of physical exercise in our Nation's youth is bolstered by troubling research finding a corresponding rise in obesity and diabetes rates.

Dr. William Klish, head of pediatric gastroenterology at Baylor College of Medicine, found that children today have a shorter life expectancy than their parents for the first time in 100 years.

Beyond the physical trials of being overweight, the psychological effects and social stigma attached to childhood and adolescent obesity are of equal concern. Self-esteem is so important for kids.

Most important, the correlation between increased childhood obesity and decreased school-based physical education is all too clear. Here are some statistics.

During the 1990s, the percentage of high school students enrolled in daily gym classes fell by 31 percent. Today, only 8 percent of elementary schools, 6.4 percent of middle schools, and 5.8 percent of high schools provide daily physical education. Overall, 25 percent of our school children today do not attend any physical education class at all.

Here is some good news. With an increase in physical activity three to five times per week, studies have found a 20 percent increase in improvement in physical fitness, in self-esteem, school attendance, and academic performance, and a 50 percent reduction in smoking and a 60 percent reduction in drug and alcohol use.

That is why I am here today. I would like to introduce to you Ann Flannery, who will speak in behalf of P.E.4Life.

Senator BINGAMAN. Thank you for being here, Ms. Flannery. Go right ahead.

Ms. FLANNERY. Thank you, Mr. Chairman, and thank you, Denise.

PE4Life was formed just 2 short years ago in recognition that our Nation's most efficient delivery system for teaching children how to lead physically active lives, school-based P.E. programs, has largely been under siege over the past 15 years. A comprehensive school-based physical education program is one that includes not only classroom instruction—what we all know as gym class—but also intramurals, after school activity clubs, and athletics.

PE is not the same thing as sports. That is one of the misconceptions that we need to educate people about. Most parents and community stakeholders are shocked to learn today that so many of our children do not receive daily P.E. in our Nation's schools.

We believe that the solution to getting our children physically active is to foster more public-private partnerships with schools. Toward that end, we created the P.E.4Life Institute. It is a partnership with the Naperville Community Unit School District 203, and it provides in-service training for community stakeholders throughout the Nation on techniques to transform their physical education programs from the more traditional skill-based instruction to more fitness-based curriculums.

The Naperville Public Schools Physical Education Program has been named and recognized as a model program by the Centers for Disease Control and is perhaps the prime example of what as been coined as "the new P.E." And let me tell you, this is probably not the P.E. that you had when you were in school, Senator.

The new P.E. engages every student and stresses lifetime fitness in addition to introducing children to traditional games, activities, and individual and team sports, and it rewards all students for personal improvement. In the new P.E. today, a P.E. professional is highly likely to use a heart rate monitor to score a student's success and levels of improvement, rather than looking at them and asking are they working hard enough.

This is really the transition that we are talking about that is going on in physical education that once parents and communities find out about, their immediate response is: How do we get that in our own community?

PE4Life commends the Committee and Senators Frist, Bingaman and Dodd in particular for your work in crafting comprehensive legislation to address obesity and fitness. We understand that a bill is likely and appreciate the opportunity to be afforded to review a draft version.

In particular we applaud the key elements contained in the draft version, including the community grants and the coordinated school health program of which physical education is a part. We have been working hand-in-hand with Dr. Dietz and Dr. Colby at CDC in their Coordinated School Health Program to understand how valuable we need to make a physical education program. We also commend the community nutrition and physical activity education and the Youth Media Campaign.

But as you proceed with crafting the final bill, there are three additional focal points that we would encourage for inclusion. The first is local partnership models. We have seen the demonstrated success of the P.E.4Life Institute model, and we are very pleased that the CDC recognizes its efficacy. Fundamentally, it involves a 30-year teaching professional named Phil Lawler. He is the director, and he is credited with being what we are calling the "guru" of the new P.E. He taught the old way, the way that, unfortunately, some of our teacher prep programs still teach physical education. We need to move them along. If it is a supply chain management issue, we need to address the teacher prep programs in physical education, and they are ready to do that, to learn all the new technology that is going on in physical education and to learn fundamentally how to be a community advocate.

So we would like you to take a look at the P.E.4Life Institute as the model. People over the country in around 200 communities have come to visit in the last 18 months examples like Owensboro, KY, where the hospital CEO recognized that all of these outcomes in their community are preventable. He found out about the Institute, and he took the mayor, the head of the school board, the head of the PTA, a prominent cardiologist and P.E. professionals in the community, and they traveled to the Institute to learn how to do this in their own community. They got energized, and now you have this community-school partnership where everyone in that community believes that every child in our school needs a daily physical education program.

The next aspect we would recommend is a national study on school physical education. As Dr. Dietz referred to earlier, we do not have enough information on what is going on out there. Forty-seven out of 50 States have something on the books about physical education, but that does not translate into what is actually happening at the local level, and we need that; it is essential.

We are concerned. The CDC's own SHIPS data confirms that what is required is not necessarily what is happening on the ground. Such a study should include the physical education requirements, the extent to which classes are available and/or mandatory at the elementary, middle, and high school level, and a com-

parative evaluation on the curriculum, including the length of time of classes, the teacher qualifications, the existence of standards, and the class size.

And then, finally, what we need more than anything, Senator, is a national fitness test. We need to be able to assess our children's fitness levels.

The CDC used to conduct the Youth Risky Behavior Survey, which was a terrific study. We would suggest that we need to fund that again to track children particularly at the K through 6 level. If we wait until high school and beyond, it will be too late.

We are encouraged by California's leadership using the Fitness Gram, a national test developed by the Cooper Institute. This comprehensive youth assessment includes a variety of health-related physical fitness tests designed to assess cardiovascular fitness, muscle strength, muscular endurance, flexibility, and body composition.

We appreciate the opportunity to be here with you today. Denise and I are both committed. It is personal to me as well. My mother was a 30-year physical education professional and very proud to say that. She made a huge impact of the health of children's lives.

Physical education is a great delivery system. We just need to reinvigorate it.

Thank you.

[The prepared statement of Ms. Austin follows:]

PREPARED STATEMENT OF DENISE AUSTIN

Chairman Kennedy, Ranking Member Gregg, Senator Bingaman, and distinguished Members of the Committee, I thank you for the opportunity to testify on behalf of P.E.4LIFE—a non-profit organization dedicated to reestablishing quality physical education programs in our Nation's schools while promoting the tangible benefits of daily physical education programs in the healthy development of our children. Also I'm pleased to be joined here today by Anne Flannery, Executive Director of P.E.4LIFE.

A PERSONAL MISSION ROOTED IN FACT

Your commitment to addressing the United States' obesity epidemic is evidenced by today's hearing, and your individual and collective efforts on this crisis is a common bond we share. Beyond my current work as the host of Lifetime TV's Denise Austin's Daily Workout, my personal mission always has been to share the joys of fitness with the widest possible audience. For ten years, my previous show on ESPN reached homes in over 82 nations.

Our joint passion to fight obesity and reverse the lack of physical activity in our Nation's youth is bolstered by troubling research finding a corresponding rise in obesity rates. Dr. William Klish, head of pediatric gastroentorology at Baylor College of Medicine, has found that children today have a shorter life expectancy than their parents for the first time in one hundred years. Currently, over 13 percent of children and adolescents are overweight, which is nearly double late-1970s levels.

Being overweight during childhood, and particularly adolescence, directly relates to increased morbidity and mortality later in life. Overweight and obese children have higher rates of asthma, Type II diabetes, hypertension, and orthopedic complications—conditions that have emerged only as the onset of this epidemic has accelerated. Beyond the physical trials, the psychological effects and social stigma attached to child and adolescent obesity are of equal concern.

And the correlation between increased childhood obesity and decreased school-based physical education is all too clear. During the 1990s, the percentage of high school students enrolled in daily gym classes fell by 31 percent. Today, only 8 percent of elementary schools, 6.4 percent of middle schools, and 5.8 percent of high schools provide daily physical education or its equivalent for the entire school year for students in all grades. Overall, 25 percent of school children do not attend any physical education class at all.

These are disturbing statistics, and I only hope that a comparative review in 2010 will paint a far different picture.

According to the U.S. Department of Health and Human Services, all children—from pre-kindergarten through grade 12—should participate in quality physical education classes every school day. In physical education class, students develop the knowledge, attitude, skills, behavior, and confidence needed to be physically active for life. With an increase in physical activity 3 to 5 times per week, studies have found a 20 percent improvement in physical fitness, in self esteem, school attendance, and academic performance—and impressively, a 50 percent reduction in smoking and 60 percent decrease in drug and alcohol use.

P.E.4LIFE: ACCEPTING THE CHALLENGE

This is why I am honored to be with you today with P.E.4LIFE. I am proud to be an active P.E.4LIFE supporter, joining noted athletes Billie Jean King, Herschel Walker, Martina Navratilova, Dominique Dawes, Stephen Davis, Payton Manning and Steve Young, among others, in helping this fight. In addition, top companies in the sporting goods industry, including Adidas, New Balance, Nike, Reebok, Spalding and Wilson, have joined together with the American Heart Association, the American Academy of Pediatrics, and other voluntary health organization to support P.E.4LIFE's mission. Now I would like to have Anne Flannery discuss several points regarding P.E.4LIFE and the Committee's Obesity Agenda.

P.E.4LIFE believes that physical education is the beginning of a lifelong learning process in which schools can play a central role in teaching our children how to live as active, responsible, and healthy adults. Our main goals include:

Raising awareness about the physical inactivity of America's youth and the unfortunate state of physical education across the Nation;

Promoting the need for educational policies that include mandatory daily physical education classes for children in grades K-12;

Advancing quality model physical education programs in every State;

Empowering physical educators, parents, and community leaders with the knowledge to become key advocates for quality, daily physical education; and

Stimulating private and public funding for quality physical education.

This year, on May 1st, P.E.4LIFE celebrated National Physical Education Day by visiting over 60 Members of Congress, including Senators Bond, Frist, Harkin, Reed, Roberts, and Wellstone of the HELP Committee. We also joined U.S. Secretary of Health and Human Services Tommy Thompson and U.S. Secretary of Education Rod Paige in promoting the importance of childhood physical activity as a means of preventing many of the diseases this young generation is facing.

PEP—ONE PART OF THE SOLUTION

In particular, P.E.4LIFE thanks the Members of this Committee for authorizing the Carol M. White Physical Education Program, known as PEP, which was included in the comprehensive education reform bill recently enacted. Promoting PEP, a competitive Federal grant program providing grants to schools and school districts for equipment and teacher training, has been among our top priorities.

PEP grants have allowed us to support and highlight good programs that are constrained by a lack of resources. While we are very pleased that PEP received an appropriation of $50 million in Fiscal Year 2002, P.E.4LIFE does not believe that PEP funding is the exclusive answer to the problem of lack of physical education problem in America. Overall, we believe the solution must take hold and be driven at the local level.

THE P.E.4LIFE INSTITUTE AND NAPERVILLE, ILLINOIS: A CASE STUDY OF LOCAL PARTNERSHIP

Placing our belief in local leadership and involvement to the test, we have created the P.E.4LIFE Institute. I have visited the Institute, which trains communities throughout the Nation on techniques to transform their physical education curriculum into model programs. By providing in-service training for community stakeholders on contemporary physical education curriculum measures, the Institute is providing strong, grassroots support and continuing education opportunities for community leaders and is creating advocates for quality, daily physical education programs within communities nationwide.

Just one example of how P.E.4LIFE is partnering with local leadership is the P.E.4LIFE Institute established with the Naperville Community Unit School District 203.

The Naperville public schools physical education program has been named a model program by the Centers for Disease Control and Prevention (CDC), and is

perhaps the prime example of what has been coined the "New P.E." This movement engages every student and stresses fitness, and is beginning to take hold in schools nationwide. Daily, quality physical education can replace failing or non-existent programs. The New P.E. stresses lifetime fitness, in addition to traditional games, activities, team sports, and rewards all students for personal improvement. More likely to use a heart monitor than a score sheet to gauge a student's success, New P.E. engages every student—not simply the relatively small percentage of outstanding athletes.

It has worked in Naperville, and like many success stories, the movement is spreading. About 30 percent of Illinois schools have changed to the new model, and officials from over 200 schools around the country have visited the Institute in the last two years. Two such examples are Owensboro, Kentucky and Titusville, Pennsylvania. In Owensboro, Hospital CEO Greg Neelson recognized that most of the conditions that affected their community's health were preventable. He read about the P.E.4LIFE Institute and arranged for ten leaders in his community—including the Mayor, head of the school board, PTA members and P.E. professionals—to travel to Naperville to learn how to implement the New P.E. They were so energized that they came back and put together the same kind of public/private sector partnership whereby the business community matches the monies pledged by both the hospital and the school districts, to implement a daily P.E. program in every school for every Owensboro Child. To date, they have underwritten 6 schools programs and are well on their way to having every child receive the New P.E. every day. In Titusville, it was the inspiration of one P.E. professional who recognized that his teaching methods were no longer sufficient to engaging today's children; Tim McCord called the Institute, arranged for a visit and in two short years has completed an overhaul of his school district's P.E. program that has gotten the attention of both the local media and educators statewide.

CONGRESS' ROLE IN THE BATTLE

P.E.4LIFE commends the Committee, and Senators Frist, Bingaman, and Dodd in particular, for your work in crafting comprehensive legislation to address obesity and fitness. We understand that a bill will likely be introduced in the next few weeks, and appreciate the opportunity afforded by the Committee to review a draft version.

In particular, we applaud the following key elements contained in the draft version and encourage their retention as the bill is introduced:

Community Grants. Local community grants, as outlined in Title II, to promote increased physical activity in the community are essential. P.E.4LIFE supports the grassroots focus of this provision. The creation of parks, bike paths, and recreational centers under this proposed provision will significantly enhance opportunities to exercise. In addition, the focus on encouraging business coalitions to increase workplace activity levels, starting of exercise programs in nursing homes, leveraging school-based facilities for broader recreational activities is appropriately targeted.

School Health Program. P.E.4LIFE looks forward to working with you to implement the School Health Program of Title III, which authorizes and expands the work of the CDC in encouraging schools to implement physical education courses and nutrition classes. We are especially pleased that funding may be provided for staff physical education training, after hours physical activity programs, and physical education class planning and implementing. This program would complement both the PEP program and CDC's school health program by working directly with schools or school districts.

Community Nutrition and Physical Activity Education. States should be permitted to use Preventive Services Block Grant funds for community education on nutrition and increased physical activity.

Health Center Obesity Programs. P.E.4LIFE supports the use of funds for community health centers, rural health clinics, Indian Health Center facilities to carry out programs to address obesity and overweight among their clientele.

Youth Media Campaign. It is very appropriate that the bill devotes resources to the CDC Youth Media Campaign—an initiative that will all contribute to increasing physical activity.

As you proceed with crafting the final bill, there are three additional focal points that P.E.4LIFE would encourage for inclusion.

Local Partnership Models. We have seen the demonstrated success of the P.E.4LIFE Institute model, are very pleased that the CDC views this initiative as a model P.E. program. P.E.4LIFE strongly encourages the Committee to include the tenants of the P.E.4LIFE Institute in Title III as an ideal model for the training of physical education personnel and the designing of physical education curricula.

National Study on School Physical Education. P.E.4LIFE also believe that a comprehensive review on the state of physical education programs is essential. Topics for a study or GAO Report addressing the level of physical education in schools should include, at minimum: each State's physical education requirements; the extent to which physical education classes are available and/or mandatory at the elementary, middle, and high school levels in each State; comparative evaluation on physical education curricula, including the length of time of classes, physical education teacher qualification, the existence of standards for physical education, and class size; and measures of accountability for student achievement.

National Fitness Testing. To enhance our continued understanding of the obesity epidemic and the role that increasing physical activity plays in achieving change, P.E.4LIFE recommends that additional measures for assessing the fitness of our Nation's youth be established. Creating incentives to States for the conducting of statewide fitness testing should be considered as the Committee proceeds.

While fitness testing in schools is not new, we are encouraged by California's leadership in using "Fitness Gram," a national test battery developed by The Cooper Institute. This comprehensive youth assessment protocol includes a variety of health-related physical fitness tests designed to assess cardiovascular fitness, muscle strength, muscular endurance, flexibility, and body composition. Criterion-referenced standards associated with good health have been established for children and youth for each of these fitness components. We view Fitness Gram as a model for other States to follow, and encourage you to include language in the bill that would incentivize States to conduct fitness testing.

On behalf of P.E.4LIFE, I thank you for the opportunity to testify today. As one person whose life work has centered on helping all Americans adopt healthy lifestyle fitness practices and habits, I greatly appreciate the time that each of you is investing. The comprehensive agenda that the Committee is forming for the forthcoming legislation is heartening and appropriate as we together remedy the obesity epidemic facing America today. Please know that both P.E.4LIFE and I are willing to work side-by-side with you in the coming days.

Senator BINGAMAN. Thank you both very much for your testimony.

Let me try to understand a little more. If I gin up a trip of school administrators and P.E. professionals and public officials to come and see your Institute, what do we learn?

Ms. FLANNERY. You are going to learn a number of things about how to implement a daily P.E. program. First of all, it is not the old P.E., and I think we need to raise awareness about that. The equipment has changed tremendously. You see a lot of, fundamentally in some ways, health club situations in the schools—climbing walls—you are seeing all sorts of activities that children get a chance to learn. But you are also seeing the adoption of new technology like heart rate monitors, software programs like FitLinks that allow children to develop their cognitive skills about what is it like to be in their target heart rate zone, what is healthy, and what is appropriate—because we do not just want to train the athletes. We want to train all of our children to understand how to be physically active their entire lives.

Senator BINGAMAN. Denise, do you try to do anything involving proselytizing on diet and what people eat as well as the exercise that you are so identified with?

Ms. AUSTIN. Yes, but I am not a nutritionist. My degree is in physical education. I am a big believer in getting out there and moving, even it is kids at whatever age, to teach people the joys of fitness and how much better you can feel about yourself. I am a big believer that you should eat well 80 percent of the time, have some treats 20 percent of the time—but the key thing here is that I believe that food is not our enemy—it is standing still, sitting still—doing nothing is our enemy.

We need to get kids out there and more active. They are sitting, watching too much TV, in front of the computer games. I get my kids out there, and we play tag, ball, anything to keep them moving. Everyone needs to implement exercise now into their lives because we sit for 8½ hours a day. We need to get up and move.

Senator BINGAMAN. All right. I am encouraged.

On your Institute, do you worry about nutrition in the schools, or do you leave that to someone else?

Ms. FLANNERY. I think the 21st century P.E. professional also needs training in nutrition. Phil Lawler has an opportunity with children to address what is calorie intake, calorie output, in very real situations with the kids. When someone is learning on the exercise machine and seeing how many calories they are burning, he can right there say, "What did you eat today?" or "What are you planning to eat between now and dinner?" and it gives very real life examples and teaching moments, which is what you want so that the child can learn on a real life basis what good nutrition is all about and what choices he or she can make.

Senator BINGAMAN. Thank you. Thank you both very much. I think your testimony has been great, and I compliment you for your lifelong commitment to solving this problem.

Thank you very much.

Let me ask the third panel to come forward now and we will hear from them.

We welcome Sally Davis from the University of New Mexico, Kelley Brownell from Yale University, Lisa Katic from the Grocery Manufacturers of America, and Richard Dickey, M.D., with Wake Forest University School of Medicine.

Thank you all very much for being here. I appreciate it. I will give a little more elaborate introduction of each of the four of you.

Dr. Sally Davis is a Professor in the Department of Pediatrics and Director of the Center for Health Promotion and Disease Prevention at the University of New Mexico School of Medicine. She has 30 years of experience in health promotion and disease prevention programs, especially in the areas of physical activity, nutrition, and obesity prevention.

Dr. Kelley Brownell is a Professor of Psychology at Yale University, where he also serves as Professor of Epidemiology and Public Health and as Director of the Yale Center for Eating and Weight Disorders. He is an internationally known expert on eating disorders, obesity, and body weight regulation.

We also have Dr. Richard Dickey who is both a physician and a Professor of Medicine at Wake Forest University School of Medicine and has practiced medicine for more than four decades. He has focused much of his efforts on the study and treatment of obesity and obesity-related health complications. He is one of the Nation's foremost experts on the subject of obesity and metabolism.

Ms. Lisa Katic is the Senior Food and Health Policy Advisor to the Grocery Manufacturers of America in Washington, DC. She is responsible for developing and implementing policies and programs related to fitness and nutrition. She is also a registered dietician and is considered an expert on nutrition policy.

Why don't we start with Dr. Davis and go right across. As I said earlier, we will take your full statement and include it in the

record as if you read it, so if you could summarize the main points that we think we should be aware of and do that in 5 or 6 minutes each, that would be great.

Dr. Davis.

STATEMENT OF SALLY M. DAVIS, DIRECTOR, CENTER FOR HEALTH PROMOTION AND DISEASE PREVENTION, UNIVERSITY OF NEW MEXICO

Ms. DAVIS. Thank you, Mr. Chairman, for the opportunity to testify today.

I come before you to share some of our experience in the battle against the growing epidemic of obesity. For the past 30 years, I have worked in partnership with underrepresented communities in New Mexico and throughout the Southwest. For the most part, these communities are rural and culturally diverse, with Native American, Hispanic, and Anglo families often living near or below the poverty level.

During these 30 years, I have seen lifestyle diseases such as obesity and diabetes increase at alarming rates and at younger ages than ever before. Paralleling these health trends is a decrease in school physical education and recess, an increase in the availability of calorie-dense foods, and a less active lifestyle.

Our Center has been actively engaged in developing, implementing, and evaluating various interventions to address the health concerns of this medically underserved population in the Southwest. I would like to highlight a few of those interventions specifically related to physical activity, nutrition, and obesity.

One of our first projects was the Checkerboard Cardiovascular Curriculum funded by the National Heart, Lung, and Blood Institute, which was a culturally and developmentally appropriate classroom intervention that focused on healthy eating and a balanced diet and on being physically active. For example, we used stories about healthy Native foods, such as the story about corn, beans, and squash called "The Three Sisters." We also taught Native games to reinforce being physically active.

It was during this project that we learned the importance of including families in school-based interventions. When included in the intervention activities, families serve as an important role model and as powerful reinforcers of the knowledge and behavior children learn at school.

An example of this from one of our projects is that grandparents were concerned that their grandchildren were not as active as they had been when they were growing up and that the children were eating too much. Elders are honored to come into the classroom and share their experiences about a time when physical activity was a part of everyday life.

These stories about the healthy habits they once practiced, such as running to the East in the morning when they woke up, and eating with one hand so they would not eat too much, provide inspiration and cultural pride.

Three other school-based projects also funded by NIH followed, the most recent of these being Pathways, in which we partnered with four universities and seven Native tribes. Since the completion of Pathways, we have had more than 300 requests from across

the country for the intervention materials and training in their use. Unfortunately, at this time, we do not have the funds for dissemination, often a problem associated with research of this kind; once it is developed and lessons learned, we do not have the resources to share with others.

Although much of our work has been done in schools, as they are important gathering places in rural communities and a focal point for reaching children and their families, we believe that interventions to promote a healthy lifestyle and prevent disease should be addressed across the life span.

For example, we were approached by the Navajo Agency on Aging, which was concerned that prevention programs were overlooking the needs of the elders. This collaboration has resulted in our providing training and technical assistance on nutrition and physical activity specific to senior citizens to the staff of senior centers across the Navajo Nation.

On the other end of the age spectrum is the collaborative project that we have with Dine College, which is a Navajo community college, to assess the nutritional status of preschool children participating in the Navajo Head Start program.

Yet another study that we recently completed assessed the availability, affordability, and variety of healthful foods on the Navajo reservation by conducting an inventory of the foods available in trading posts and convenience stores. Zuni Healthy Foods First is another project currently underway that promotes the intake of selected fruits, vegetables, and other healthy foods that includes partnering with local grocery stores. We are also involved in developing a nutritional training module for the March of Dimes Birth Defects Prevention Task Force aimed at preconception health education through motivational counseling.

On the national level, we are the lead center for a CDC Division of Nutrition and Physical Activity-funded network of 11 universities and 12 State health departments who are working together to identify innovative approaches to increasing physical activity, improving nutrition, and preventing obesity.

All the projects that I have presented were made possible through Federal funding. The science of what we know about increasing physical activity and improving nutrition and particularly preventing obesity is very new and therefore, very limited. If we are to identify solutions to the growing problems associated with obesity, it is important that programs like these and others that are innovative, that meet local needs and are rigorously evaluated be supported through funding and legislation. We need more programs designed to educate and support families, including the aging population. Schools and communities need support in creating healthy and safe environments for physical activity.

We need to find out what works and what does not work. This bill to establish grants to provide health services for improved nutrition, increased physical activity, and obesity prevention is an important and much needed move in the right direction to meeting a critical health need of this country.

Thank you.

Senator BINGAMAN. Thank you very much, Dr. Davis.

[The prepared statement of Ms. Davis follows:]

PREPARED STATEMENT OF SALLY M. DAVIS

Thank you, Mr. Chairman and distinguished Members of the Committee for the opportunity to testify today. I am Dr. Sally Davis, Director of the Center for Health Promotion and Disease Prevention at the University of New Mexico. I come before you to share some of our experience in the battle against the growing epidemic of obesity. For the past 30 years, I have worked in partnership with under-represented communities in New Mexico and throughout the Southwest. For the most part these communities are rural, and culturally diverse (Native American, Hispanic and Anglo) with families often living near or below the poverty level. During these 30 years, I have seen lifestyle diseases such as obesity and diabetes increase at alarming rates and in younger ages than ever before. Paralleling these health trends is a decrease in school physical education and recess, an increase in the availability of calorie dense foods and a less active lifestyle.

The University of New Mexico Center for Health Promotion and Disease Prevention, one of the Centers for Disease Control's (CDC) Prevention Research Centers (PRC) has been actively engaged in developing, implementing, and evaluating various interventions to address the health concerns of this medically underserved population in the Southwest. I would like to highlight those interventions specifically related to physical activity, nutrition and obesity.

One of our first projects was the Checkerboard Cardiovascular Curriculum (CCC) Project named for a vast land area of New Mexico with a checkered patterned of land ownership that includes Navajo homesteads, ranches that were once Spanish land grants; other private land; and public lands administered by the Bureau of Land Management (BLM) and U.S. Forest Service. The CCC project, funded by the National Heart Lung and Blood Institute, was a culturally and developmentally appropriate classroom intervention that focused on eating a healthy and balanced diet and being physically active. For example, we used traditional stories about healthy Native foods such as the story about corn, beans, and squash called "The Three Sisters." We also taught Native games to re-enforce being physically active. It was during this project that we learned the importance of including families in school-based interventions. When included in intervention activities, families serve as important role models and powerful re-enforcers of the knowledge and behaviors children learn at school. An example of this from our projects is that grandparents are concerned that their grandchildren are not as active as they had been when they were growing up and that the children are eating too much. The elders are honored to come into the classroom to share their experiences about a time when physical activity was a part of every day life. The stories about the healthy habits they once practiced such as running to the East each morning when they woke and eating with one hand so they would not eat too much, provide inspiration and cultural pride. Traditional food preparation is a favorite activity of both the grandparents and students and leads to discussions of ways to make food healthier during preparation. Stories of foot races and long distance running is also a favorite and remind children of their heritage. A video documentary of local Native people who have chosen to live a healthy lifestyle continues to be very popular.

Taking what we learned from the Checkerboard Cardiovascular Curriculum project and at the invitation of the communities and schools over the years we developed the Southwest Cardiovascular Project and the Pathways to Health projects. Our most recent intervention, Pathways, was with tribes and universities across the country. For eight years, we worked with schools and communities located in seven Indian Nations. Using a participatory approach, researchers from five universities, seven Indian Nations and the National Heart Lung and Blood Institute developed, implemented and evaluated a physical activity and nutrition intervention for students in grades three through five. Pathways was designed by building on a foundation of previous experience, social learning theory, community-based formative assessment and cultural concepts representative of the participating population. The four components of Pathways include classroom curriculum, family activities, physical activity and school food service. Family Fun Night includes booths where families can taste foods such as low fat milk and healthy snacks. Families also learn things they can do with their children to be physically active and receive prizes for participating in active games. Short physically active games designed for the classroom, called exercise breaks, re-enforce the importance of movement. In the curriculum, students correspond with other students from other tribes in the Pathways project and share information about healthy foods and activities common to each participating tribe. Food service workers learn ways to make school lunches and breakfasts healthier. Pathways was successful in increasing children's knowledge about nutrition, physical activity, and health in general and positively affecting their nutrition and physical activity behaviors. Parents, school administration and

staff were very positive about the project and especially appreciated the training that accompanied each of the components. Parents often told us how much they enjoyed the activities and how much the program had influenced them to make changes in their daily habits relating to eating and being active. Since the completion of Pathways, we have had more than 300 requests from across the country for the intervention materials and training in their use. Unfortunately, at this time we do not have the funds for dissemination.

Although much of our work has been done in schools, as they are an important gathering place in rural communities and a focal point for reaching children and their families, we believe that interventions to promote a healthy lifestyle and prevent disease should be addressed across the life span. For example we were approached by the Navajo Agency on Aging and a community health educator who were concerned that prevention programs were overlooking the needs of the elders. This collaboration has resulted in our providing training and technical assistance on nutrition and physical activity specifically for senior citizens to the staff of Senior Centers across the Navajo Nation. On the other end of the age spectrum is a collaborative project with Din College (Navajo Community College) to assess the nutritional status of preschool children participating in the Navajo Head Start program. The results of this study will provide a data set that can be used to inform discussion of policy and effectiveness of food assistance programs and nutritional interventions among Navajo families. Yet another study assessed the availability, affordability, and variety of healthful foods on the Navajo reservation by conducting an inventory of the difference sources, such as trading posts and convenience store, for purchasing food throughout the Navajo reservation. This project helps to better understand what foods are realistic to recommend to families and what food stores should be encouraged to carry. "Zuni Healthy Foods First" is another project currently underway that promotes the intake of selected fruit, vegetables, and other healthy foods through a practical, multi-dimensional approach that includes partnering with the local grocery stores. They have agreed to stock foods recommended in nutrition classes and take incentive coupons from those families attending the nutrition/cooking classes.

Nutritionists from the Prevention Research Center are also developing a nutritional training module for the March of Dimes Birth Defects Prevention Task Force aimed at "Preconception Health Education through Motivational Counseling".

Since our Prevention Research Center is university-based and we are located within the Health Sciences Center we have a wonderful opportunity to reach students and residents in training for the health professions. We provide hands-on experiences and one-on-one mentoring for a diverse group of students and residents of all levels. We believe it is important to include these individuals to better prepare them as prevention researchers and health care providers of the future.

All of these projects I have presented were made possible with Federal funding. The science of what we know about increasing physical activity and improving nutrition and particularly preventing obesity is very new and therefore limited. If we are to identify solutions to the growing problems associated with obesity it is important that programs like these and others that are innovative, meet local needs, and are rigorously evaluated be supported through funding and legislation. We need more programs designed to educate and support families including the aging population. Schools and communities need support in creating healthy and safe environments for physical activity. We need to find out what works and what doesn't work in the prevention of obesity and the improvement of physical activity and nutrition. This means more funding for prevention research and training of researchers. Preservice and continuing education must be provided to health professionals if they are to provide state-of the-art counseling and treatment for their patients. The "Improved Nutrition and Physical Activity Act" (IMPACT), to establish grants to provide health services for improved nutrition, increased physical activity, and obesity prevention is an important and much needed move in the right direction to meeting a critical health need of our country.

Senator BINGAMAN. Dr. Brownell.

STATEMENT OF KELLEY D. BROWNELL, DIRECTOR, YALE CENTER FOR EATING AND WEIGHT DISORDERS, YALE UNIVERSITY

Mr. BROWNELL. Thank you for the opportunity to speak.

I love the fact that this bill exists. As much as the content in it, the fact that this bill is before the country now, is something quite

striking and marks a very important point in the history of our dealing with an important health problem.

The folks who have spoken so far today have talked a lot about physical activity, and that is very important—do not get me wrong—but we are ignoring the food part of this, and the food part of it is at least as important as the physical activity, and it is easy to ignore because of pressure from the food industry.

I am going to make the point that the epidemic of obesity exists because of a toxic food and physical inactivity environment and that until we recognize this cause and do something bold and innovative about it, we are going to be losing this battle.

The programs we have heard about today, programs in communities, are innovative and absolutely need to be done, but for every case of obesity this prevents, there are probably more thousands more coming on line because of this toxic food and physical inactivity environment.

We simply cannot get rid of this problem by traditional medical treatment or by community programs, because the toxic forces are so overwhelming. By a "toxic" environment, I mean the physical inactivity that has been explained in great detail already, but also the fact that food is available everywhere, all the time, in places where it never used to be. You can eat a meal in a gas station now. You can eat a meal in a drugstore. You can eat a meal in a shopping mall. This was never the case before.

Portion sizes have grown out of control. What used to be the large is now the small; portion sizes have been manipulated up, up, and up until the default sizes are absolutely astronomical.

The food industry pounds away relentlessly at our psyche, and this is especially true of children in a way that I will mention in just a minute. This is a David and Goliath contest. This is a drop against a tidal wave, if you will. Let me give a few examples.

The National Cancer Institute has $1 million per year to spend on advertising the Five A Day program to encourage people to eat fruits and vegetables—$1 million. McDonald's alone spent $500 million on the "We Love to See Your Smile" campaign. One company, one campaign, 500 times what the NCI spends.

The entire Government budget now for nutrition education is one-fifth the annual advertising budget for Altoids mints. It is not surprising, therefore, that one-fourth of all vegetables served in the United States come as french fries.

The picture with children is especially appalling. The average American child sees 10,000 food advertisements a year. A mother or father who gives a compelling media-based lecture to their child every day of the year would deliver 365 messages compared to the 10,000 from the food industry.

We are engineering physical activity out of schools. We feed our children terrible school lunches. We allow the soft drink companies and the snack food companies to put machines in our schools. The schools become dependent on this money, but logos for Coke and other companies show up on scoreboards and on uniforms and in other places, and more and more, schools are beginning to look like 7–Elevens with books.

The question is what do we do. First, we have to make a philosophical judgment ourselves as to how much of our resources can

we contribute to trying to help people who have the problem already versus trying to prevent it. Helping people with a problem already smacks of compassion and is obviously an important thing to do, but it costs a lot, because the treatments that we have are not terribly effective, although there are some promising things out there, and they tend to be fairly expensive. So from a public health point of view, we are not going to be able to treat this problem away.

This, of course, leads us naturally to the issue of prevention, and that leads us, of course, to the issue of children. I think that children are to the obesity field what secondhand smoke was to tobacco. You can always make the individual responsibility argument for adults, but when you see 8-year-old children with what used to be called adult-onset diabetes, probably needing cardiovascular bypass surgery by the time they are 30, it is very hard to make a personal responsibility argument.

I think we need to make bold, decisive moves on the level of public policy, and specifically, I would suggest the following. One is to make physical activity more available to the population. This has been discussed in detail.

Second, I believe we need to regulate food advertising aimed at children. The 10,000 food commercials, by the way, 95 percent of which are for fast food, sugared cereals, soft drinks and candy, have to be combatted by something, and what I would suggest specifically is some kind of equal time legislation that would mandate equal time for pro-nutrition messages, and money should be put behind developing pro-nutrition messages.

What happens in our schools has to be changed. Fast foods, snack foods, and soft drinks should be banned from the schools. Dr. Dietz is correct—it is not the machines that we are concerned about; it is what is in the machines. So if children have healthy foods available, they will eat healthy foods; if they have unhealthy foods available, they will eat those. It is a simple matter. Animals will do the same thing when put in a cage. If children have fast foods available, the snack foods and the soft drinks, they are going to consume them, and we are going to have trouble.

Finally, I would recommend that we consider some ways to reverse the economic picture of food. The fact is that unhealthy food is easy to get, and it costs relatively little; healthy food is harder to get, and it costs too much. And as long as the economics are set up like this, we are bound to have a society that is going to overeat the unhealthy foods.

If you go to poor neighborhoods especially—this has been quite well-documented—healthy foods are not available, and when one does find them, they tend to cost an awful lot, whereas there are lots of choices of soft drinks, snack foods, candy, and the like.

I am going to end with a discussion of how we interact with the food industry around this, and I think this is a very important philosophical decision that the folks making the policy will have to deal with.

There is much talk these days of stakeholders, of coalitions, and words like "partnership" get used a good bit. The way I see our field going is that the food industry is becoming a part of the decisionmaking progress. Now, I am a collaborative person by nature,

and generally, partnerships and coalitions are a good thing rather than a bad thing, but we have to be cautious here, and I think there is a dear price to pay if we are not careful about how we move ahead. We have to take some knowledge from what happened with tobacco and the way the tobacco industry dealt with these issues, too.

This is what I believe the food industry is going to do, and they have shown many signs of this already. First of all, they are going to stay and say "We need more research"; recommendations that come out of committee meetings and so on will be watered down and will end up looking like pablum more than anything bold and decisive.

Second, they have the opportunity to deny, distort and ignore both the science and common sense. I will give you an example in a moment. They will say that parents and families must do the job. Well, if parents and families could do the job, we would not have this problem in the first place. They will also make straw man arguments and say things like we cannot blame the epidemic on one food, we should not make demons of certain parts of the industry, and that things like a soft drink tax which several States are considering now will not wipe away this problem. Of course, they will not wipe away the problem. It is an enormous, complex problem, and no one thing is going to get the job done. But those are straw man arguments.

As an example of this, let us look at soft drinks. The most authoritative recent study that has been done on soft drink consumption which was published in a good medical journal, *The Lancet*, by Ludwig and colleagues concluded the following, and I quote: "Consumption of sugar-sweetened drinks is associated with obesity in children." Common sense will tell you that that is the case, and data tell you that is the case. However, the website from Saturday from the National Soft Drink Association said the following: "Soft drinks do not cause pediatric obesity, and further, the soft drink industry has a long commitment to promoting a healthy lifestyle for individuals, especially children." How can anybody with an IQ over 8 believe that to be the case?

They also say—and this is actually true, but sad—that "The revenue generated from the sale of beverages in schools is an important part of the education funding equation in the United States." If the schools need the money, and if they need to sign on with corporate America in order to survive, why can't they sign on with computer companies, with fitness equipment companies—something other than food, which is basically helping to poison our children.

It took 40 years to get where we are today with the fight against tobacco. The industry stalled, ignored the data, denied the data, and did all the things that are now well-known. You can just see it coming with the food companies. If they are on the team, we are going to crawl up the field inch by inch by inch and make very slow progress. I believe that it is better to have them on defense than it is to have them sabotaging your offense.

Thank you.

Senator BINGAMAN. Thank you, Dr. Brownell.

Ms. Katic, please go ahead.

STATEMENT OF LISA KATIC, SENIOR FOOD AND HEALTH POLICY ADVISORY, GROCERY MANUFACTURERS OF AMERICA

Ms. KATIC. Thank you, Mr. Chairman.

My name is Lisa Katic. I am a registered dietician, as you pointed out earlier, and I am the Senior Food and Health Policy Advisor to the Grocery Manufacturers of America.

GMA is very pleased to be before you today. We want to share our views on food and nutrition. We are the world's largest association of food, beverage, and consumer product companies. We employ more than 2.5 million people in all 50 States.

First of all, let me begin by commending the Committee for focusing on solutions today rather than scapegoats. The problems that we are addressing today are the result of a complex combination of factors. That is why we believe the title for this hearing is appropriate—"Getting Fit, Staying Healthy: Strategies for Improving Nutrition and Physical Activity."

We believe that effective solutions demand a comprehensive strategy, one that avoids blaming individuals, food companies, or societal trends. As a nutritionist, I can tell you that this issue is about calories in versus calories out. The source of calories does not affect this equation.

The American Dietetic Association says that a healthy lifestyle involves a well-proportioned, balanced diet and physical activity. You cannot have one without the other.

With every passing decade, there seems to be a new diet that focuses on a single food group or nutrient, such as carbohydrates, proteins, or fats, and these diets profess to be the answer to all of our weight gain woes. The Atkins diet first gained popularity in the 1970s. In the 1980s, the nutrition culprit was fat. Today, obesity rates are rising, and once again, Americans are turning to failed diets of the past, and consumers are as confused as ever.

My point is that none of these have worked in the past. They are not going to work now. Consumers need consistent and understandable messages about food and health, based on the best available science. We must take a total diet approach and forever abandon blaming a single food or nutrient as the cause of America's weight gain.

Many people come to this hearing today with differing perspectives, but no one disagrees that physical activity is the leading cause of health in America. I did say that physical activity is the leading cause of health in America.

Last year, the Surgeon General called for 30 minutes of daily physical activity for every school-age child. Sadly today, we are not even close to meeting this goal. The goal must be to make physical fitness a part of our culture. Habits that are learned early stay with us for a lifetime.

Mr. Chairman, it is time to get Americans moving again. GMA recognizes that our industry has a very important role to play in improving fitness and nutrition. Our industry has long supported nutrition education and physical activity programs, like Take 10, Activate, the Five-a–Day campaign, and Colorado on the Move, just to name a few.

Our member companies also place a very high priority on researching and developing new ways to make people's favorite foods

even healthier without sacrificing taste. We know that taste is the number one reason why people choose food. Many companies provide financial, technical, and personnel support for local food banks and community-based wellness programs.

Although we have some suggestions, GMA believes that legislation currently being drafted by this Committee is headed in the right direction, particularly the focus on research, on physical activity, and on nutrition education.

In the area of improving nutrition education, I cannot emphasize enough that quality research is needed to determine what actually changes behavior and changes behavior for the long term. There is a tremendous amount of nutrition information available, but it is just not always getting through to the people who need it, like parents, teachers, and community leaders.

Equally important, the information is not always culturally appropriate. It is not always available to help at-risk or minority populations.

Let me just say a word or two about some of the punitive measures that have been offered as solutions today. Efforts to tax, ban, or restrict the consumption of certain food are scientifically unsound and in fact quite counterproductive. Such proposals lull people into thinking that something complex can be solved by something simple. Quite simply, they do not work, and Congress should reject them.

In fact, a study published in the *Journal of the American Dietetic Association* states that overly restrictive diets can lead to enhanced food cravings, overindulgence, and even eating disorders.

Finally, let us not forget the critical role that individuals and families play in combatting obesity. While the Government provides information to help consumers make informed choices, and the food and beverage industry provides variety, neither of these is as important as the role that parents play in establishing proper eating habits for their children. Parents must also show a good example by engaging in regular physical activity themselves.

Mr. Chairman, we look forward to working with you as you progress on your legislation. We have a lot of expertise in this area, we have a lot of suggestions, and we are also very committed to helping Americans get fit and stay healthy.

Senator BINGAMAN. Thank you very much.

[The prepared statement of Ms. Katic follows:]

PREPARED STATEMENT OF LISA KATIC

Good afternoon Mr. Chairman and Members of the Committee. My name is Lisa Katic. I am a registered dietitian and a Senior Food & Health Policy Advisor to the Grocery Manufacturers of America (GMA).

GMA is pleased to appear before the Committee today to share our views on the issue of fitness and nutrition. GMA is the world's largest association of food, beverage and consumer product companies. With U.S. sales of more than $460 billion, GMA members employ more than 2.5 million workers in all 50 States. The organization applies legal, scientific and political expertise from its member companies to vital food, nutrition and public policy issues affecting the industry. Led by a Board of 42 Chief Executive Officers, GMA speaks for food and consumer product manufacturers at the State, Federal and international levels on legislative and regulatory issues.

GMA and its member companies believe the topic for today's hearing is critically important. The food and beverage industry we represent has long advocated for comprehensive, long-term strategies for improving the health and wellness of all

Americans by promoting science-based solutions focused on the critical balance between fitness and nutrition. We have done so as individual companies and trade associations and, more recently, in cooperation with other industry allies, not-for-profit organizations, public health professionals and others who are committed to promoting the balance between fitness and nutrition. Many of these groups and individuals have joined with GMA to form the American Council for Fitness and Nutrition, an organization dedicated to these ideals.

GMA thinks the "Improved Nutrition and Physical Activity Act" is the perfect title for the legislation being developed by Members of this Committee because it sets the right framework for this discussion. The lack of a balanced diet coupled with the lack of regular, daily physical activity can lead to many physical and mental conditions—including depression, heart disease, diabetes and overweight.

These conditions emerge because of a complex combination of factors and cannot be solved solely by blaming individuals, food companies or societal trends and events. It is well documented that people become overweight from a variety of dietary, socio-economic, genetic and life-style risk factors. Therefore, finding effective, long-term solutions requires (1) a thorough understanding of the science of fitness and nutrition, (2) a recognition of the benefits of a well portioned and balanced diet, and (3) a commitment to promoting physical activity.

I would like to discuss these three topics in turn and then offer some insights into the contributions the food and beverage industry is making to help improve general wellness. Finally, I will close with observations on the draft legislation and what more can be done by individuals, the food and beverage companies and Government entities to improve nutrition and physical activity for all Americans.

I. The Science of Fitness and Nutrition

History has taught us that there can be no single solution to improving our children's nutrition and fitness. Although our need for food is basic, the interaction between nutrition, exercise and health is complex. To help our kids lose weight and get in shape, we must understand the evolution of food and the latest developments in nutrition science to avoid repeating past mistakes in nutrition advice offered by Government, health professionals or the media.

As a nutritionist, I can tell you that there is a consensus that at its core, this issue is about calories in versus calories out. In scientific terms, obesity is a disease with a multifactorial etiology. In addition to diet and physical activity, incidence of overweight and obesity are also affected by sociocultural factors, socioeconomic status, and an individual's unique genetics and physiology. To understand how a poor diet and the lack of physical activity in particular contribute to overweight and obesity, the fundamentals of thermodynamics must be understood and applied: calories consumed = calories expended. The source of calories consumed does not affect the equation. Total diet (calories in) and physical activity (calories out), therefore, are the critical controllable factors in today's weight loss and in weight maintenance.

Overweight and obesity among Americans are linked to several major chronic diseases affecting Americans, such as cardiovascular disease, cancer, and diabetes. Overweight children are more likely to become overweight adults, and, therefore, they may be at increased risk of developing these chronic diseases later in life. There is general scientific agreement that parents and healthcare professionals should stress to adolescents the benefits of eating a healthy diet, as outlined in the U.S. Department of Agriculture's Food Guide Pyramid. The American Dietetic Association has stated that the entire diet, rather than specific foods, should be scrutinized. Identifying the extra calories that might be contributing to an adolescent being overweight or obese will probably be more effective in changing his or her diet than portraying individual foods as good or bad.

Simply put, the science is too much in flux to declare a final answer today. For instance, we have been told to monitor cholesterol to prevent coronary heart disease, which is the leading cause of death in the United States. More recent studies have identified homocysteine, not cholesterol, as a culprit in producing arteriosclerosis. Scientists are also now divided on the role of saturated fats in causing coronary heart disease. That linkage, once thought ironclad, is now being reassessed. Retrospective epidemiological studies are now calling into question the practical benefits of avoiding saturated fats for an entire lifetime. What is clear is that the keys to a healthy lifestyle involve following the American Dietetic Association's (ADA) guidance on a well proportioned, balanced diet and physical activity. Doing just one is not enough: we need to do both.

In addition to scientific research, the amount of general nutrition information available to the public is at an all time high. However, consumers are potentially more confused about food and its role in enhancing health than ever before. This is especially true when it comes to losing or maintaining weight.

With every passing decade, there seems to be a new "diet" that focuses on a single food group or nutrient, such as carbohydrates, proteins and fats, and professes to be the answer to all our weight gain woes. The Atkins diet was popular in the 1970s, developed in response to the targeting of sugar and carbohydrates. In the 1980s, the nutrient culprit of the decade was fat. Now, in the new millennium, obesity rates are rising and, once again, many Americans are turning to the anti-sugar and anti-carbohydrate diets of the past and consumers are as confused as ever.

My point is that none of these fads worked in the past and, as a nutritionist I can tell you, they will not work this time either. We have an opportunity to get it right this time. Consumers need consistent and understandable messages about food and health based on the best available science—not quick fixes that promise to deliver unrealistic benefits. We must take a total diet approach and forever abandon blaming one nutrient or food as the cause of America's weight gain.

II. A Well Proportioned and Balanced Diet

The Government has recognized that a balanced approach to diet is the right approach, as opposed to characterizing certain foods as "good" or "bad." In the preambles to the proposed and final regulations implementing the 1990 Nutrition Labeling and Education Act (NLEA), FDA emphasized that there is no such thing as a good food or a bad food. Similarly, the USDA Food Guide Pyramid focuses on a well portioned and balanced diet. This is the same approach embraced by one of the most successful diet-assistance groups, Weight Watchers.

The Weight Watchers POINTs program uses a positive system that allows consumers to build their own diet, complete with ample food choices, including ice cream, pizza and "fast food." The program does not prohibit any food or nutrient; it just teaches people to balance the amounts of their consumption. It doesn't mandate, tax or prohibit, it measures and recommends. Since introducing the points program, Weight Watchers members have lost a combined 79.9 million pounds.

Other examples support that position. Although the number and type of reduced-fat, low-fat, and non-fat foods has increased dramatically over the last twenty years, more Americans are overweight today than in 1990. We know that people are buying and reading the labels on low-fat foods; but we are still gaining weight as a population. Some non-fat and low-fat foods may have as many calories as their regular variety. Other studies have demonstrated that both obese and non-obese adolescents who exercise consume similar amounts of calorie-dense snack foods, items of minimal nutritional value, and food with highly saturated fat. So simply avoiding fat or sugar is not the magic some think. We have lost sight of the simple fact that calories still count.

Moreover, if Congress focuses on "bad" foods, it will find that opinions about those foods change radically over time. Ten years ago, we were most concerned about the propensity of dietary cholesterol to raise serum triglyceride levels. Accordingly, people were advised not to consume animal fats. Today, scientists have uncovered some components found in animal products called conjugated linoleic acids that may provide exciting health benefits. We also now know that calcium, which is abundant in dairy products, can deliver health benefits beyond building strong bones. Calcium is now linked to providing potential protective effects against colon cancer and may help those with diabetes.

In looking at the total diet, we should identify the amount of excess calories in an individual's diet, rather than declaring individual foods are "good" or "bad." Restricting, taxing or prohibiting certain foods will almost certainly not work. In fact, a study published in the *Journal of the American Dietetic Association* states that overly restrictive diets may lead to enhanced food cravings, overindulgence, eating disorders or a preoccupation with food and eating. Moreover, selective food taxes are arbitrary, discriminatory and regressive. Such taxes hinder free choice by consumers and disproportionately affect households with lower incomes that may have fewer affordable snack options.

Some studies have been completed which develop this point, but more research needs to be done, especially with children. Many of the existing studies have focused on the role of exercise and diet in extending an adult's life. We need to review existing studies and determine what additional studies might be helpful in focusing on childhood and adolescent nutrition and fitness. For example, we should be looking at the role of nutrition and fitness in the development of diabetes, respiratory or skeletal problems and other conditions that are problematic for children, pre-teens and adolescents. Similarly, we should focus on the balance between fitness and nutrition to promote overall wellness—instead of focusing too much attention on weight loss.

III. The Benefits of Physical Activity

Many people came to this hearing today with many competing perspectives, but no one disagrees that physical activity is the leading cause of health in America.

According to the American Heart Association, daily physical activity helps reduce the risk of heart disease by improving blood circulation throughout the body, keep weight under control, improve blood cholesterol levels, prevent and manage high blood pressure, prevent bone loss, boost energy level, manage stress, improve the ability to fall asleep quickly and sleep well, improve self-esteem, counter anxiety and depression, increase muscle strength, provide a way to share activity with family and friends, establish good heart-healthy habits in children.

Physical activity among children is especially important. Studies have also shown that children who participate in quality physical education programs fare better physically and mentally than children who are not physically active. The National Association for Sport and Physical Education reported that a quality physical education program will help children improve self-esteem and interpersonal skills, gain a sense of belonging through teamwork, handle adversity through winning and losing, learn discipline, improve problem solving skills and increase creativity.

But it is clear that fitness is becoming less of a personal issue and more of a societal concern. It is important to stress individual solutions toward fitness but at the same time we need to examine all the environmental changes in our lives that have reduced fitness.

Time spent on computers and televisions have overtaken sports; driving has overtaken walking; technology and automation reduce on-the-job activity—and people around the world are becoming more sedentary.

More alarming is the lack of quality daily physical activity in our Nation's schools. According to a report issued by the International Life Sciences Institute (ILSI), about one in four children do not get any physical education in school. Physical education requirements in our public schools have been declining over the last twenty years. Today, only the State of Illinois has a daily physical education requirement for grade K–12, but it allows schools to be exempted from this requirement. During the 1990s, the percentage of high school students enrolled in daily gym classes dropped from 42 percent to 29 percent and only 19 percent of those high school students taking daily physical education courses are physically active for 20 minutes or more a day. Outside of school, the statistics are equally concerning. According to ILSI, fewer than one in four children get 20 minutes of vigorous activity every day of the week and fewer than one in four get at least half an hour of any type of physical activity every single day.

The Surgeon General, many leading researchers and well-respected health organizations, the FDA and USDA have all said the risks of inactivity are too great regardless of your diet. Mr. Chairman, it is time to get Americans moving again.

Last year, Congress approved $50 million in funding for the Physical Education for Progress (PEP) program. The PEP Act authorizes the U.S. Department of Education to award grants to help initiate, expand and improve physical education programs in schools. Funds awarded under PEP can be used for a variety of purposes including the purchasing of equipment, hiring of staff and developing curriculum. The PEP program provides vitally needed funds to local communities and schools and can serve as a catalyst for communities across America to address physical activity issues. GMA supports the PEP program and urges you to encourage your constituents to apply for grants. We would also urge Congress to support full funding for PEP in the FY2003 appropriations process and beyond.

For children, we agree with the standards set by the Surgeon General: at least 30 minutes of physical activity for all grades K–12. The goal here, Mr. Chairman, should be to make physical fitness a cultural habit that catches on early. Like all habits, the ones that start early tend to stay with us for a long time. Quite simply, to make physical fitness a habit for life it will need to become part of American culture.

IV. Industry's Contributions

GMA believes the food and beverage industry has a very important role to play in helping to improve fitness and nutrition. The industry has introduced tens of thousands of products that provide options for consumers looking for ways to incorporate variety, balance and moderation in their diets. Food and beverage companies also place a high priority on researching and developing new ways to make people's favorite foods even healthier without sacrificing taste. For example, large numbers of products are fortified with calcium and other essential vitamins and minerals and many items have been reformulated to provide reduced or lower calorie, fat or salt content while delivering good taste.

What is done in the home and in the community is also important to combating this problem. GMA members and many other companies in the industry support a wide variety of nutrition education and physical activity programs designed to help individuals and their communities. Here are just a few examples:

TAKE 10! is a classroom-based program focused on the promotion of physical activity designed to reduce periods of inactivity during the school day. The program integrates 10-minute intervals of physical activity into the school day combined with age-appropriate lessons of math, science, language and arts.

The 5 A Day Better Health Program is a national program to encourage all Americans to eat 5 to 9 servings of fruits and vegetables every day for good health. The national 5 A Day for Better Health Program, established in 1991 as a partnership between the National Cancer Institute and the Produce for Better Health Foundation, is the largest public-private partnership for nutrition and health in the United States and in the world.

ACTIVATE—a communications and web-based program designed to provide important nutrition and physical activity information for children and their families.

Colorado on the Move is a new program developed by the University of Colorado's Center for Human Nutrition in response to the national obesity epidemic. The program proposes easy to implement strategies to increase physical activity in the population that will be sufficient enough to prevent positive energy balance and weight gain.

GMA and its member companies have also been long-standing promoters of health and wellness in the communities in which we operate. Many companies have provided financial, technical and personnel support for local food banks, community-based wellness programs (e.g. diabetes prevention programs, "heart healthy" education programs) and school-based nutrition education and physical activity programs.

Closer to home, the GMA Board of Directors recently approved a set of corporate wellness principles to promote the creation of prevention-based initiatives at our companies that are designed to improve the health and wellness of our workforce.

V. Observations and Suggestions

There is a growing understanding in Congress and across the United States that food, itself, is not the problem. It is the lack of a balanced diet and not enough exercise that is the root cause of today's concern.

Imprecise solutions and unfounded rhetoric have sent many consumers down the wrong paths. Punitive measures and quick fixes such as snack taxes, advertising and sales restrictions are unproductive and potentially dangerous. Such proposals lull people into thinking that these complex problems can be solved with one simple measure. As a dietitian, I feel compelled to reinforce the need for measured, balanced approaches to this complicated issue. This is not just my opinion, but a position supported by many clinical and dietary science professionals. Congress should not criticize people's willpower or food choices; instead it should promote positive program focused on the balance between diet and exercise. This is nothing new. Most leading health associations, well-respected weight loss programs and fitness experts support this philosophy.

GMA believes the legislation is heading in the right direction by focusing on improving nutrition education, increasing physical activity, and calling for additional research. We strongly support the provisions calling for a cataloguing of existing research to better understand what is currently being done and in which areas additional research may be necessary. In addition, we encourage the Committee to look at existing programs that might be able to accomplish some of these activities without having to create new organizations and bureaucracies. As with any piece of legislation, it is important that all definitions be precise, and that grants are well tailored to their purpose and given to the most meritorious applicants. We have some additional suggestions that we look forward to working on with you as this proposal progresses.

In the area of research, I cannot emphasize enough the importance of quality research on behavioral factors. Currently, the research that is available is inadequate. We need to investigate more fully what actions change behavior so that we can develop programs that actually work.

Another area that must be improved is nutrition education. GMA supports the professional guidance of the American Dietetic Association, which states all foods fit within the U.S. Dietary Guidelines. We support additional research to determine the best way to introduce and teach these concepts to parents and their children. While tremendous amounts of information currently exists, much of it is not produced or distributed in a way that gets it into the hands of those who need it most—parents, their children, educators and community leaders. We also need a better commitment

to provide up-to-date nutrition education programs that are culturally appropriate. These nutrition education programs should build on the ADA's recommendations and teach our children the value of variety, moderation and balance. Much more research is needed to enable us to do so effectively.

Speaking broadly, we must empower individuals through education and awareness. We need to improve the public's understanding of the consequences of too little exercise and unbalanced diets and urge Americans to view obesity as more than a cosmetic issue. After we raise awareness, we must offer access to effective programs and educational tools that people can actually use. These programs should embrace the science of fitness and nutrition mentioned earlier and identify ways to achieve a balanced diet and quality daily physical activity in the workplace, our community, home and school environments.

On the public policy front, we pledge to work with Congress to look for additional ways to adopt the Surgeon General's recommendation for physical activity for all school aged children, K–12 and find ways to improve the quality and accessibility of nutrition education underscoring how all foods eaten in moderation can fit into a healthy diet. In addition, we look forward to working with you to increase funding for research on the behavioral factors that contribute to America's weight gain; identify and support effective and culturally appropriate health interventions to reach at-risk and minority populations; and provide incentives for schools, communities and companies to develop and adopt physical fitness and general wellness programs.

Finally, a discussion on fitness and nutrition would not be complete without mentioning the critical role individuals and families play in combating obesity. Ultimately, individuals have to make a choice about the foods they eat and the level of physical activity they engage in. Governments can and should provide information to help consumers make informed choices. The food and beverage industry also plays an important role in providing choice and variety and promoting its products in a truthful and non-misleading fashion. None of these actions are as important, however, as the role parents play in establishing food eating patterns and preferences for their children.

Parents must set a good example of eating a moderate amount of a wide variety of foods. Most weight management experts agree that food should not be withheld or used as a reward. At the same time, foods should not be forced on children. Children need to see their parents setting a good example by enjoying and engaging regularly in physical activity. As studies have shown, people who learn appropriate eating habits early in life continue to eat responsibly throughout their lifetime and pass these good habits onto their children.

The ability for individuals to exercise choice and make responsible decisions will be aided or hindered by the outcomes of this hearing and the actions taken by Congress from this point forward. Let me reiterate the importance of endorsing policy proposals that are positive, comprehensive and address the problems surrounding the fitness and nutrition debate in a responsible manner.

GMA is very pleased by the willingness of the Senate, and particularly the Members and staff of this Committee to engage in a dialogue with the food industry. We believe our expertise can be an asset in this on-going effort. We look forward to working with the Committee on this important subject, and thank the Committee for its constructive and positive approach to this matter.

Senator BINGAMAN. Dr. Dickey, please go ahead.

STATEMENT OF RICHARD A. DICKEY, M.D., WAKE FOREST UNIVERSITY SCHOOL OF MEDICINE, ON BEHALF OF THE ENDOCRINE SOCIETY

Dr. DICKEY. Thank you, Mr. Chairman, and good afternoon.

My name is Richard Dickey, and I am a newly-retired physician. I practiced endocrinology for over 30 years and still practice as a volunteer at an indigent clinic in North Carolina. I also continue to teach at Wake Forest University School of Medicine and have participated in People-to-People Ambassadors programs leading endocrinologists to China and Cuba to study problems with obesity and metabolic syndrome in those cultures.

I am pleased to testify before you today on behalf of the Endocrine Society, where I serve on the Clinical Affairs Committee. We commend the Members of the HELP Committee for their leader-

ship and support in bringing the issue of obesity to the attention of both the Congress and the American public.

The Endocrine Society, founded in 1916, consists of over 10,000 physicians and scientists who are dedicated to the study of endocrinology. Endocrinology is the study of hormone disorders including diabetes, obesity, thyroid disease, osteoporosis, infertility, menopause, pituitary tumors, and hypertension.

I am also here as a representative of the Hormone Foundation, the Endocrine Society's patient education organization. This foundation plans to launch a major initiative over the next year to address the growing epidemic of obesity and help educate patients and physicians on the metabolic syndrome.

The Endocrine Society strongly supports the Senate HELP Committee's development of the Improved Nutrition and Physical Activity Act. The efforts of this Senate Committee to address and raise the visibility of obesity and its negative impact on the health of our Nation is truly commendable. As an organization dedicated to the advancement of research and knowledge and the care of patients, the Endocrine Society urges the Committee to take this opportunity to address the impact of research and the mechanisms responsible for the diagnosis and treatment of obesity and its complications, including the metabolic syndrome.

In 2002, obesity is a national epidemic, as we have heard, with the number of obese and overweight Americans nearly doubling over the past 10 years. Estimates from the U.S. Surgeon General indicate that over half of all Americans are now overweight. Adipose tissue, or fat, hunger, weight, and metabolism are all regulated by hormones. Research by endocrinologists has shown that obesity, especially in children, can lead to numerous medical problems later in life, including diabetes, heart disease, and infertility.

You have identified a number of excellent programs to address this epidemic. I would like to expand on several areas that the Endocrine Society believes to be imperative. The first is to recognize the medical risks of obesity. We define the most debilitating and costly complications of obesity as the metabolic syndrome.

The Centers for Disease Control estimates that a decade ago, approximately one in five United States adults had the metabolic syndrome, which is defined as a person having three or more of the following: abdominal or visceral central obesity, high blood fat levels, low HDL or so-called "good" cholesterol, high blood pressure, or high blood sugar or glucose.

The NCEP expert panel concluded, because the root causes of the metabolic syndrome for the overwhelming majority of patients are improper nutrition and inadequate physical activity, that the high prevalence of this syndrome underscores the urgent need to develop comprehensive efforts directed at controlling the obesity epidemic and improving physical activity levels in the United States.

But besides the American adult population, obesity, diabetes, and the metabolic syndrome also affect American children. Our health care system is simply not prepared for the epidemic explosion of diabetes and other metabolic complications of obesity in our younger generation of Americans. The costs to the American public of the medical complications of obesity are substantial and may increase health care costs to a greater extent than tobacco use and smoking.

Annual health care costs of diabetes alone are approximately $100 billion now and are expected to double over the next 10 to 20 years. The costs of medical complications of obesity and the metabolic syndrome in terms of pain, suffering, and loss of productivity are also important and include blindness, kidney failure, limb amputations, stroke, heart attack, cancer, and death.

To address the medical complications and health care costs of an epidemic of this proportion, we will need a new arsenal of tools and new therapies to supplement the nutritional and exercise approaches. The internal signals that control body weight and metabolism are very complex and need much more study. Research to determine the mechanisms responsible for obesity and the metabolic syndrome, as well as for the prevention of and treatment for obesity and related clinical conditions such as diabetes and cardiovascular disease is essential. Research also should include funding for a significant genomics component to expedite the identification of genes with mutations or polymorphisms linked to obesity and the metabolic syndrome, to expedite the development of more effective therapies.

The Endocrine Society appreciates this opportunity to testify before the Senate HELP Committee on the very important issue of obesity. It is not a simple problem with a simple answer. Obesity is a devastating and extremely costly epidemic, an epidemic which is robbing and ruining the lives and health of millions. We must confront it, and we must stop it. To date, we have failed to fully acknowledge, to understand, to develop and implement, effective and adequate means to prevent and treat the cancer of obesity in our Nation. The Endocrine Society believes that the Committee is headed in the right direction by focusing on improving nutrition education and increasing physical activity. In addition, significant progress can be achieved toward preventing obesity through research to better determine and understand the mechanisms responsible for this national and, in fact, international problem.

The Society looks forward to continuing to work closely with the Senate and particularly the Members and staff of this Committee to achieve meaningful progress in the battle against obesity.

Thank you.

[The prepared statement of Dr. Dickey follows:]

PREPARED STATEMENT OF RICHARD A. DICKEY, M.D.

Good afternoon Mr. Chairman and Members of the Committee. My name is Richard Dickey and I am a newly retired physician. I practiced endocrinology for over 30 years, and still practice as a volunteer at a local indigent clinic. I also continue to teach at Wake Forest University. I participated in the People to People Ambassador program, and have led groups of physicians to China and to Cuba to study obesity and metabolic syndrome in these cultures.

I am pleased to testify before you today on behalf of The Endocrine Society, where I serve on the Clinical Affairs Committee. We commend the Members of this Committee for their leadership and support in bringing the issue of obesity to the attention of both the Congress and the American public.

The Endocrine Society, founded in 1916, consists of over 10,000 physicians and scientists who are dedicated to the advancement, promulgation, and clinical application of knowledge related to endocrinology. Our members include academic researchers and educators as well as clinicians involved in the daily treatment of patients with hormone disorders including diabetes, obesity, hyperthyroidism, hypothyroidism, osteoporosis, infertility, menopause, pituitary tumors, hypertension and other endocrine disorders. We publish four peer-reviewed journals: Endocrinol-

ogy, Endocrine Reviews, The Journal of Clinical Endocrinology and Metabolism, and Molecular Endocrinology.

I am also here as a representative of The Hormone Foundation, The Endocrine Society's patient education organization. The Hormone Foundation is dedicated to improving the quality of life by promoting the prevention, diagnosis, and treatment of human disease in which hormones play a role. The Hormone Foundation plans to launch a major initiative over the next year to address the growing epidemic of obesity, and educate patients and physicians on the metabolic syndrome.

The Endocrine Society strongly supports the Senate HELP Committee's development of the "Improved Nutrition and Physical Activity Act." The efforts of this Senate Committee to address and raise the visibility of obesity and its negative impact on the health of our Nation is truly commendable. As an organization dedicated to the advancement of research and knowledge and the care of patients, The Endocrine Society urges the Committee to take this opportunity to address the impact of research in the mechanisms responsible for the diagnosis and the treatment of obesity and its complications, including the metabolic syndrome.

In 2002 obesity is a national epidemic with the number of obese and overweight Americans nearly doubling over the last 10 years. Estimates from the U.S. Surgeon General indicate that over one-half of all Americans are overweight. Adipose tissue or fat, hunger, weight, and metabolism are all regulated by hormones. Research by endocrinologists has shown that obesity, especially in children, can lead to numerous medical problems later in life, including diabetes, heart disease, and infertility.

You have identified a number of excellent programs to address this epidemic. I would like to expand on several areas that The Endocrine Society believes to be imperative. The first is to recognize the medical risks of obesity. We define the most debilitating and costly complications of obesity as the metabolic syndrome.

Metabolic Syndrome: The Center for Disease Control estimates that approximately one in five U.S. adults have the metabolic syndrome. The Third Report of the National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation and Treatment of High Blood Cholesterol in Adults (ATPIII) defined individuals with the metabolic syndrome as having 3 or more of the following:

Abdominal obesity (waist circumference >102 cm, or 40 inches, in men, >88 cm, or 35 inches, in women)
High blood fat levels (triglyceridemia > 150 mg/dl)
Low HDL cholesterol (<40 mg/dl in men, <50 mg/dl in women)
High blood pressure (>130/85 mm Hg)
High blood sugar (fasting glucose >110 mg/dl).

The researchers concluded, "Because the root causes of the metabolic syndrome for the overwhelming majority of patients are improper nutrition and inadequate physical activity, the high prevalence of this syndrome underscores the urgent need to develop comprehensive efforts directed at controlling the obesity epidemic and improving the physical activity levels in the United States." The problem of improper nutrition is related to the "Western Diet", characterized by higher consumption of red meat, processed meat, french fries, high-fat dairy products, refined grains, and sweets and desserts; the "Prudent Diet", a far healthier choice, is characterized by higher consumption of vegetables, fruit, fish, poultry and whole grains. According to a new study from the Harvard School of Public Health that followed more than 42,000 male health professionals for 12 years, men who consumed a typical "Western Diet" were 60 percent more likely to develop diabetes than those whose diets center on vegetables, fruits, whole grains, fish and poultry. Besides the American adult population, the metabolic syndrome also affects American children. A recent estimate revealed that 1 in 4 obese children may show signs of pre-diabetes (NEJM ref). Our health care system is not prepared for the epidemic explosion of diabetes and metabolic complications of obesity in our younger generations of Americans.

The costs to the American public of the medical complications of obesity are substantial. Obesity may increase health care costs to a greater extent than smoking. Annual health care costs of diabetes alone are approximately $98 billion now and are expected to double over the next 10-20 years. The costs of the medical complications of obesity in terms of pain, suffering, and loss of productivity also are important. Medical complications of obesity and the metabolic syndrome include blindness, kidney failure, amputations, strokes, heart attacks, and death.

Funding for basic and clinical research: To address the medical complications and health care costs of an epidemic of this proportion we will need a new arsenal of tools and new therapies to supplement the nutritional and exercise approaches. The internal signals that control body weight and metabolism are very complex and need much more study. Research to determine the mechanisms responsible for obesity and the metabolic syndrome as well as for the prevention of and the treatment for

obesity and related clinical conditions, such as diabetes and cardiovascular disease, is essential. Research also should include funding for a significant genomics component to expedite the identification of genes with mutations or polymorphisms linked to obesity and the metabolic syndrome to expedite the development of more effective therapies.

Clinical Funding: In the long term, to address this epidemic, we will also need to develop creative new strategies to ensure funding for the clinical care of obesity, including expanding multidisciplinary clinical obesity centers, and assuring access to medical care for the prevention and treatment of obesity prevention and the metabolic syndrome.

Funding for and development of public school-based educational programs in nutrition and exercise targeted at children and adolescents and funding for and development of community-based educational programs in nutrition and exercise: This needs to go a step further than issuing block grants. The development of web-based educational tools marketed and made available to schools would ensure a consistent message, and provide all educators the opportunity to work these issues into their curriculum.

CONCLUSION

The Endocrine Society appreciates this opportunity to testify before the Senate HELP Committee on the very important issue of obesity. It is not a simple problem with a simple answer. The Endocrine Society believes that the Committee is headed in the right direction by focusing on improving nutritional education and increasing physical activity. In addition, significant progress can be achieved toward preventing obesity through research to better determine and understand the mechanisms responsible for this national problem.

The Society looks forward to continuing to work closely with the Senate, and particularly the Members and staff of this Committee to achieve meaningful progress in the battle against obesity.

Senator BINGAMAN. I thank all of you very much for your testimony. Let me ask a few questions about trying to zero in on some practical steps that could be taken and that Congress could assist with.

Obviously, this problem is societal, the problem of inadequate activity and poor diet. But it seems to me that the portion of that that is actually most susceptible to change would be in the school setting. It seems like you could have a big impact there, because you are dealing with young people. Clearly, we have had a lot of testimony this afternoon about physical activity and the need to get physical education back into our schools and the right kind of physical education, and I certainly agree with that.

On the issue of diet in the schools, it would seem that two fairly straightforward approaches, if they are done in parallel, would make a lot of sense. One is to substantially improve school lunches so that they are better and more appealing to kids. I think a lot of kids look at the school lunch and figure this is a loss and go to the vending machines or outside, across the street, to the burger joint. So one is improved school lunches, but at the same time to get the junk foods out of the schools so that kids really do have an option of eating good food while they are being kept in the school.

Do you agree with that approach, Dr. Brownell? Is that a good place for us to concentrate our efforts so as to really be able to have a measurable impact?

Mr. BROWNELL. That would be an absolutely wonderful place to start. As long as the bad foods are present, there are biological and, of course, social reasons why kids will eat them, so the more you can minimize the presence of unhealthy foods and maximize the presence of healthy ones, the better you will do.

I would take what you said one stop further and somehow develop the philosophy that what the kids are eating and their physical activity gets integrated with the educational mission of the school. Right now, food service in most schools is sort of a standalone operation, like custodial services, where you just do not want them to lose money, keep the customers happy, get them to buy as much of whatever as you can just so you do not lose money.

If all of these things get integrated, and health education, physical education and the school lunch program all go together because the schools believe this will ultimately be in the best interests of their children—even their academic performance—I think you will have more hope.

Senator BINGAMAN. Thank you.

Do any of the rest of you have a comment on that?

Ms. Katic, did you have a view on that?

Ms. KATIC. Absolutely. I really want to emphasize first of all that there has been an attempt to improve the school lunch program over the last several years. USDA has a program in place called Team Nutrition that has been implemented in many schools across the country. It meets the dietary guidelines for Americans—for instance, 30 percent of calories from fat, and so forth. They are still trying to implement that program across the country. It has been effective in a lot of schools. At the same time, they have tried to market the school lunch program to make it appealing for kids, because historically, that has really been a challenge and a problem.

I want to say something obviously about the junk foods in schools. I feel very strongly that "just saying no" to these kinds of foods in schools does not give children the tools they need to make choices throughout their lives. It is something that they really need to be educated about, and that needs to start in the classroom.

If you take foods away—you heard it said earlier in the *New York Times* article—they are going to go somewhere else and get it. These foods are available all the time, and they are going to be available for the rest of their lives. So if they do not learn how to include it in the diet, they never learn. They have to learn when, how much, when it is appropriate, and if that is not offered in the schools, they do not have the right tools to navigate the food environment as they get older.

Senator BINGAMAN. I would certainly agree that teaching kids to "just say no" is not the solution, but it would seem to me that if you have a good nutrition education program in the school, it would make sense to complement that by not having a vending machine right outside the door that is selling junk food.

Ms. KATIC. Sixty percent of schools today offer water and 100 percent juice as options in vending machines. All soft drink companies provide diet soft drinks.

Senator BINGAMAN. But there is not the kind of advertising campaign directed at kids saying go out and buy yourself a bottle of water that there is to buy Coke or Pepsi.

Ms. KATIC. Water is the fastest-growing item in the beverage category. It is being driven by consumer demand. And yes, we do see advertising for water.

Senator BINGAMAN. Well, maybe you will solve the problem for us, and we will not have the problem of kids drinking too many sodas.

Dr. Dickey.

Dr. DICKEY. Yes, I would agree that the education of the kids is important, but I think the education of the parents and the education of medical professionals, as well as the teachers, is important. It has to be a comprehensive program, and it has to be integrated with the physical activity and the nutrition program.

We tend to eat what tastes good. We tend to choose what tastes good, what we like, not necessarily what is healthy for us, and that behavior is very difficult to change. It has been mentioned earlier that changing behavior takes a lot longer and a lot more persistence than just educating.

So I think that we need an educational program to help make better choices and then provide those better choices is the key.

Senator BINGAMAN. Thank you.

Ms. Davis.

Ms. DAVIS. In Pathways, we actually worked with the school food service personnel, and I will mention three things that they were eager to learn and did in their school breakfast and lunch programs. Those were offering choices to the kids as they came through the lunch line. It made it much more appealing if they had several different vegetables or fruits to choose from in the lunch line. Second was working with them in their food preparation to prepare the food in a more healthy way, with less saturated fat, less fat, and in a more appealing way to the children as well, and sharing that from school to school what the school lunch workers were learning. We found it to be extremely successful, they enjoyed doing it, and the children liked it as well.

The other problem that we worked with them on is that they were giving seconds of the main course rather than seconds of the fruits and vegetables, so we worked with them on that. So they were small changes, but they were important changes, and they were changes in the whole lunch program.

Senator BINGAMAN. Let me ask about one other subject and that is the contracts that many schools and school districts have entered into with various food vendors to provide exclusive rights to sell a particular soft drink. I do not know how extensive those are, but I have spoken with people in school administration in my State, and they say we need those funds. We have gotten a deal here where we have become addicted to having the fast food vending machines in the schools because the schools get a cut of everything that is sold.

How do we unscramble that egg and get to a situation where we are not hamstrung in our ability to make rational policy judgments because of some contractual agreement that we have entered into?

Dr. Dickey, do you have a point of view on that?

Dr. DICKEY. I was shocked to learn about these contracts within the past year and the great impact that they have. I think the answer is that we have to find some way to provide the funds that are being supplied by those alternatives, because that is not the way we should be deciding what our choices are.

So providing an alternative source of funds and in an incremental fashion, withdrawing those, or providing alternative choices, even under contract, which are healthier choices—that is a choice that we can make—whether we are going to continue to sign contracts to fund schools and education by forcing changes in the offerings that we think or healthier choices, or whether we are simply going to replace those funds with other funds which are already short. But that is a hard choice to make, and it is one of the choices we are going to have to make.

Senator BINGAMAN. Ms. Katic, did you have a point of view?

Ms. KATIC. Absolutely. I think Dr. Dietz said it best earlier when you asked him the same question. I support what he said. He inferred, as Dr. Dickey just mentioned, that offering choice is very important and then backing up with nutrition education in the classroom what the proper choices are that should be made is extremely important.

So that instead of taking those kinds of foods away, I think it is really important to add alternatives, as was just suggested. And I mentioned earlier and will say it again that water and juice are definitely sold in the schools, and like I said, water is the fastest growing category. Diet drinks are offered as well. So there are already existing choices in vending machines, and I think we need to highlight the ones that we want our children to choose.

Senator BINGAMAN. Dr. Brownell.

Mr. BROWNELL. I think these contracts are quite pernicious. There is a famous case in Colorado Springs where the school district there was given millions of dollars, not just hundreds of thousands, to sign a 10-year contract with Coca–Cola. If I remember the numbers right, the contract stipulated that the school system would sell 70,000 cases of Coke products in one of the first 3 years of the contract. In the year prior to the contract, they had sold 21,000 cases of Coke products. So the school system basically entered into a contract agreeing to triple the sales of Coca–Cola products in their school system in order to get this many millions of dollars. It is hard to argue that that is good.

And the issue about choices sound like "mom and apple pie," but you would not want to put cigarette machines in the schools so kids can get real world experience in making choices.

The sad fact is that the way America is now, if the bad food is there, kids are going to eat it. Some kids will go next door to the 7-Eleven, some will go to the Burger King down the street, but this will have enough of a public health impact that it would really make a significant dent, I think, in the weight problem, and then, at least the schools become an opportunity for the kids to learn positive things rather than to walk past the soft drink machines, the vending machines, and go into a cafeteria that either has a fast food franchise in it, which is the case with thousands of schools, or basically makes the same foods themselves.

Senator BINGAMAN. Dr. Davis, do you have any comment on this?

Ms. DAVIS. No, but I agree with Dr. Brownell.

Senator BINGAMAN. Thank you all very much. It has been useful testimony and a very useful hearing, and we will continue to work on this legislation and refine it and hopefully introduce it in a couple of weeks.

Thank you all very much.
[Whereupon, at 4:35 p.m., the hearing was adjourned.]
[Additional material follows.]

ADDITIONAL MATERIAL

PREPARED STATEMENT OF SENATOR ENZI

Thank you Mr. Chairman. I join you in welcoming the witnesses in our panels today. I look forward to listening to your comments and proposals for a strategy to improve physical activity and nutritional practices in America.

On the surface, getting fit and maintaining a healthy body seems like a simple issue. Our bodies run on a simple equation; when energy intake is greater than energy expenditure, the object gains mass. When energy expenditure is greater than energy intake, the object, our body, loses mass. However, the equation in the American culture is complicated by recliners and king-sized snack packs.

Our mission today is very serious. We will seek information from you to form strategies that encourage healthier eating and exercising, but more importantly, we will discuss how to change our culture. Throughout these discussions, we must not villainize the wrong actor.

In recent years, sugar has been booed off the stage of our national diet. Sugar-free diets are marketed as the best way to lose weight. We need to consider scientific evidence before we suggest limiting access to a food which, in moderation, has no negative health implications.

A recently published U.S. Department of Agriculture (USDA) research brief on current scientific knowledge concluded that intake of added sugars is not associated with diabetes, heart disease, obesity and hyperactivity. First of all, sugars are not "empty calories." Humans transform all digestible carbohydrates into the simple sugars the body needs. All simple sugars are chemically identical. It follows that the body does not distinguish sugars added to foods from the same naturally occurring sugars or sugars broken down from complex carbohydrates.

The report indicated that Food and Drug Administration's Sugars Task Force and the National Research Council concur: there is no conclusive evidence citing sugar consumption as an independent risk factor for coronary artery disease in the general population.

Evidence does not single out dietary sugar as the cause of obesity; many factors contribute to this disease. A number of studies actually show an inverse relationship between reported sugar consumption and overweight. Mr. Chairman, I would like to request that a copy of this report from the USDA Center for Nutrition Policy and Promotion be included in the record.

As the Committee considers today what strategies we should initiate to increase the health of the American people, I suggest we evaluate all factors that contribute to obesity and adopt a well-rounded approach to our health.

Thank you Mr. Chairman.

PREPARED STATEMENT OF SENATOR CLINTON

For years, we have listed chronic diseases like heart disease, cancer, stroke, diabetes as some of the leading causes of mortality, yet we have not done enough to address the causes of these chronic conditions. It is now recognized that individual behaviors and environmental factors are responsible for 70 percent of all premature deaths in the United States. While we must learn more about the other factors that contribute to these diseases, there are some factors that we clearly know to target. Physical inactivity, poor diet, tobacco use are at the top of the list. These behaviors lead to the diseases that ultimately kill us. We don't have to sit idly by waiting for some deadly disease to strike. Our own behavior can help protect us or put us at increased risk.

Unfortunately we have not always done a good job educating ourselves and the public about the importance of our own health behaviors. We have begun to tackle the problem with smoking, but still have a long way to go. American diet and exercise habits have deteriorated to a record low. Obesity is reaching epidemic proportions: 27 percent of U.S. adults are obese and 13 percent of children and 14 percent of adolescents are seriously overweight. Daily physical activity has declined for both children and adults. After school sports are reserved for the elite athlete and physical education (PE) is no longer required. Even when youngsters take P.E., they rarely actively participate. The consequence of this sedentary behavior is taking its toll. Type II diabetes is increasing at an alarming rate. Type II diabetes used to be a disease of older overweight adults. It is now being diagnosed in children.

It is time that we recognize the cost of poor dietary behaviors and physical inactivity to our own health and the health of our Nation. Studies have shown that Type II diabetes is preventable in both children and adults by careful attention to diet

and exercise. We need to help our young people develop healthy eating and exercise behaviors that they can carry with them though out their lives. Fad diets and simple messages to be thin will not work and have unintended consequences of their own.

Recent data from the 1999 Youth Risk Behavior Survey indicated that 7 percent of young women who were very thin (body mass index < 15 percentile) reported taking laxatives or vomiting to lose weight or to avoid gaining weight. An even larger percentage (9 percent) of these very thin young women reported using diet pills.

Poor eating habits have also led to a "calcium crisis" among American youth. Very few adolescent girls (14 percent) get the recommended daily amount of calcium, placing them at serious risk for osteoporosis and other bone diseases. Because nearly 90 percent of adult bone mass is established by the end of adolescent growth period, the Nation's youth's insufficient calcium intake is truly a calcium crisis. The consequence of this crisis will be seen years later, when we are likely to face an unprecedented incidence of osteoporosis in women.

We need a comprehensive approach to promoting healthy eating habits and regular exercise. Senator Bingaman and I have introduced S. 2249, Promoting Healthy Eating Behaviors in Youth, that would attempt to prevent the serious array of eating-related health problems now common in our Nation, by supporting research to identify the best ways to help young people develop healthy eating habits. However, this bill is just a small beginning. We need more research to guide both prevention and treatment efforts and we need communities of all types—families, schools, work settings—to create the supportive environments necessary to make a real change in what we eat and how often we exercise.

RESPONSE TO WRITTEN QUESTIONS OF SENATOR CLINTON FROM KELLEY BROWNELL

Question 1: Do we know the best ways to help children develop healthy eating habits?

Answer 1. Biology drives most people toward a diet high in fat, calories, and variety. This would be adaptive if food was scarce, but this drive intersects with a food environment that is relentless in making problem foods accessible, cheap, good tasting, and ubiquitous. It will take powerful efforts to reverse this situation.

Children are a logical place to begin. Eating habits are established early, so programs in elementary schools would be helpful, and Government programs such as WIC, Head Start, and food stamps could be central to the effort. The object would be to offer children healthy and attractive food, integrate eating with education (so children are learning about good nutrition), and to create programs that make the material fun and educational. Research shows that children can learn to like healthy foods when presented in the right context.

Another key issue with children is learning about portion sizes. The "more is better" philosophy is ingrained in American consumer habits. Words like big, super, and mega describe serving sizes of many foods. What was once the large soft drink is now the small (16 oz.), the large fries of yesterday are now the small size, and things like "value meals" may be teaching children that large sizes are good, even necessary. "Supersize" is now a verb. Eating to the point where hunger is satisfied, understanding reasonable portions, and avoiding inducements to eat large sizes must be taught to children.

Physical activity is also important. The activity itself will help with weight control and overall health, but can also lead to healthier eating. The food industry is pushing hard to focus the spotlight on physical activity, saying consensus exists on the importance of exercise. It would be a mistake to leave activity out of the picture, but it would be grave mistake also to let attention be diverted from food.

Question 2: Are eating disorders and obesity related?

Answer 2. There is fear among eating disorders specialists that increased focus on weight and obesity will drive more people toward disordered eating (pressure to be thin would be even more intense). This would be a special concern in children, who are developing their adult body image and can fall into unhealthy dieting practices.

Eating disorders can be crippling, and should not be ignored, but because obesity dwarfs these disorders in public health significance, the obesity effort should not get hamstrung by critics in the eating disorders field. Perhaps the way to be sensitive to this constituency is to address the issue in legislation or other places, perhaps with language like:

"Obesity prevention programs should be implemented in ways to prevent the onset or exacerbation of disordered eating and body image problems. Focusing on

nutrition and physical activity in the service of health, vitality, and well-being, educating children on natural variations in body size, and avoiding images of thin ideals such as models is essential."

RESPONSE TO WRITTEN QUESTIONS OF SENATOR CLINTON FROM LISA KATIC

Question 1. You mentioned in your testimony that "overly restrictive diets may lead to enhanced food cravings, overindulgence, eating disorders or a preoccupation with foods and eating." I have heard from many young women who have started diets to lose weight and "be healthy" only to develop an eating disorder. How can we discourage obesity and not encourage eating disorders?

Answer 1. Your first question about how to address obesity without encouraging eating disorders is a critical one. The best way to do this with a young population is to be positive about food and nutrition education in the school and home environments. Some schools have attempted to implement eating disorder prevention programs only to find they were more harmful than helpful. Programs that introduce young people to disordered eating may inadvertently create negative outcomes by raising awareness about weight issues among this vulnerable population who may have been otherwise uninterested in losing weight. Education programs then show young people new and suggestive weight control methods such as laxative use, diuretics, smoking, or binging. Students may become more aware about the need to diet and now know how to achieve a result. Some other potential adverse effects of eating disorder prevention programs are: glamorization of eating disorders often depicted in the media by highlighting famous people who have suffered from eating problems; prevention programs can give children the idea that everybody is doing it, therefore it is socially acceptable; and negative messages about "bad" foods such as sugar or fat contribute to fear of food.

The first step in establishing positive nutrition messages in school-based education is to change the focus from highlighting negative, problem-based approaches to focusing on building self-esteem and showing children how to enjoy food and regular physical activity without developing a fear of food. This can be achieved by conducting cooking classes where children learn about all of the ingredients that go into certain foods. Supermarket tours can provide practical application of nutrition information, as can visits to students' favorite restaurants.

Also, nutrition educators, teachers and parents must examine the important role they play in modeling positive eating behavior. Those that interact with young people on food and nutrition issues must consider their own body image and self-esteem. Specialized training for teachers, health educators and dietitians is needed in this area and should not only provide factual information about food and nutrition, but must also provide information and activities that focus on healthy body image, shape and normal growth patterns throughout the lifespan. The primary focus of this training should be to encourage educators to abandon the common negative approach to food, which uses terms like "junk food" or "bad food" and not use terms such as overweight and obesity. Children and adolescents must learn how to fit their favorite foods into an overall balanced diet and feel good about doing so in the process.

Question 2. I know many young women who have given up milk products entirely in order to avoid the calories and stay thin. Many of these women have successfully avoided the effects of obesity but will end up with a different health problem: osteoporosis. What kind of media campaign should be direct at our youth? I am concerned that a campaign that emphasizes the importance of being thin may have some unintended consequences.

Answer 2. If the approach outlined above were successfully incorporated into a school's curriculum, then your second question would not be an issue. The same positive approach to food is needed in this case as well.

If young women perceive milk products as being "bad" because they contribute to weight gain, then young women have a constant uphill battle with food. They will potentially struggle for a lifetime to achieve a happy medium between consuming foods with the nutrients they need to maintain health and desiring to meet an unrealistic set of goals for their weight. Unfortunately, the unrealistic set of weight goals usually wins in the end. Nutrition is compromised and women or men will suffer health consequences if a negative approach to food and nutrition is adopted.

Any campaign targeted at this population must be positive and focus on health not the importance of being thin. Messages delivered to a target audience in any campaign must be tested with that audience first to determine their impact and acceptability.

I hope this helps answer your questions, I would be happy to provide additional information if needed on any of your food or nutrition questions.

PREPARED STATEMENT OF JOHN MCCARTHY

Mr. Chairman and Members of the Committee: On behalf of the International Health, Racquet & Sportsclub Association (IHRSA), I want to commend the Committee for focusing legislative attention on the major public health problem of obesity in the United States today. Two of the largest contributing factors to obesity are poor nutrition and inadequate physical activity. IHRSA, representing 5,000 of our Nation's health and fitness facilities, is dedicated to improving the public's health through physical activity, and we strongly support legislative focus on this problem.

It is important to note that framing this issue as a public health problem is correct and essential. Almost ⅔ of all adults are seriously overweight or obese and the percentage of obese children has doubled in the last two decades. The World Health Organization has declared that obesity is set to become the largest disease of the century. It is appropriate for the Government to carefully examine the causes of the problem, and to enact programs and incentives which will encourage healthy eating and healthy levels of physical activity. To do otherwise is to tolerate the continuing increases, in heart disease, cancer, stroke, and diabetes, as well as the associated fiscal costs of obesity.

We cite two of the many recent research reports which document the problem of obesity. In June 2001, RAND issued a report analyzing the costs and scope of obesity. It concluded that obesity was now the number one public health problem in the United States, even greater than the health effects of smoking, poverty, or problem drinking. The RAND study demonstrated how obesity is linked to very high rates of chronic illness. Not surprisingly, obese individuals spend 36 percent more on health services and 77 percent more on medications. In addition, the March 14, 2002 issue of the *New England Journal of Medicine* reports that physical fitness is the single most important factor, aside from age, which predicts life expectancy. The *New England Journal of Medicine* authors explicitly call upon physicians to encourage their patients to improve their exercise capacity.

Obesity costs are estimated at $117 billion annually. The Committee and Congress should be aware that these costs represent direct costs of medical care and loss of income to our citizens who suffer from obesity and related medical conditions. There are further losses to the employer community which supports most health insurance costs for their employees as well as the cost of turnover and lack of productivity accompanying significant illnesses. There is, of course, a loss to the Federal and State governments, whose Medicare and Medicaid programs will increasingly be taxed by the costs of these disease conditions which are a consequence of obesity.

To allow our citizens to enjoy long and productive lives, to avoid the drag of immense and preventable obesity-related health costs on our economy, and to focus our scarce Government health resources on the most intractable health problems, we should as a Nation make every effort to improve our nutrition and fitness.

ROLE OF HEALTH AND FITNESS FACILITIES

Health and fitness facilities have become critically important players in the national effort to promote health and prevent disease.

Approximately 34 million Americans utilize the Nation's health, sports and fitness clubs. They range in age from youth to senior citizens, with particularly strong growth in participation in the 55+ age group over the past few years. In the whole population, only about 10 percent judge their health to be "excellent," but one third of fitness club members believe they have excellent health.

The health and fitness clubs of today are a long way from the old gym. There have been genuine advances in understanding exercise physiology and development of equipment which efficiently aids exercise and fitness development. More importantly, most private health clubs have been developing ongoing relations with health care industry professionals. To cite a few relevant developments:

89 percent of IHRSA members offer initial fitness assessments.
73 percent offer body composition analysis.
66 percent offer nutritional counseling.
63 percent offer weight management programs.
61 percent offer exercise prescriptions.
55 percent offer wellness education.

Health and fitness facilities play an essential role for millions of Americans who are interested in fitness and maintaining a healthy lifestyle. In doing so, they also are an essential resource in controlling the costs of poor nutrition and fitness.

ROLE OF EMPLOYERS

The key question is what motivates a person to exercise and maintain a healthy level of physical activity. Although there are many factors, it is IHRSA member experience that the involvement of an employer through programs centered at or sponsored through the workplace are successful. Just as most private health insurance is provided through the employer, we need to create a system in which fitness benefits and services may be promoted through the employer. This connection may be direct, with facilities located on site. It may be through an employer offering a health plan in which a fitness program is an available benefit. Or it may be through an employer contributing to or subsidizing employee utilization of health club facilities.

The Healthy People 2010 report from the Department of Health and Human Services details how obesity and the resulting chronic conditions cost employers more than 39 million days of work time annually. At the top of employers' worries are the controlling health care costs, gaining efficient employee performance, and recruiting and retaining qualified workers. These issues are all the more intense for small employers, which often cannot afford large health insurance premiums, or afford to lose proven and productive employees.

Most adults spend half or more of their waking hours at worksites. Both from the standpoint of the costs to employers, and the healthy impact on employees, connecting employees with concepts of health and fitness at the worksite is essential.

Just as the schools are the logical starting point for encouragement of healthy lifestyles and nutrition habits for children, the worksite is the most logical platform from which to build more effective programs and personal activity habits.

ENCOURAGING ACTIVITY AND SOUND NUTRITION

We know that Senator Frist and others are preparing proposals which can focus resources on these important priorities. The schools have an essential role to play, given their prominence in our children's lives and their educational responsibilities. Governmental and local entities should be encouraged to grant tax relief and incentivize physical activity and nutrition counseling activities at the local level, including activities sponsored by business.

Yet we believe it is essential to enlist the five million small employers who employ 70 percent of the private workforce with fitness programs which can be clearly and easily used by employers and employees. The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity 2001 cited that "the worksite provides the many opportunities to reinforce the adoption and maintenance of healthy lifestyle behaviors." Furthermore, the report recommends creating incentives for employees to join local fitness centers. Accordingly, we suggest that the Congress include in any legislation the "Healthy Workforce Incentive" concept.

In 1984, the Congress enacted Internal Revenue Code Section 132, relating to the non-taxation to employees of certain fringe benefits received from employers. That section allows employers to maintain on-premises health and fitness facilities, and allow employee use of such facilities without additional income or tax consequences to the employee receiving the benefit of these services. This tax incentive, however, is of no use to those millions of businesses which do not have the resources (space and/or capital) to create and maintain fitness facilities for their employees.

To encourage health and fitness and control the costs associated with the chronic conditions arising out of obesity, the Congress can make a very simple modification of IRC Section 132. By simply removing the "onsite" requirement, employers, especially small employers, would be encouraged to contribute to their employee use of fitness facilities, regardless of the location of the employee or the availability of a "company gym." Smaller employers, in particular, for the first time would be able to incentivize employee physical activity with no negative tax consequences to the employee. The change would require no additional bureaucracy, no detailed rulemaking, no complicated tax accounting.

This change would give employers a very important additional technique to work with their employees on healthy lifestyle and nutrition habits. We firmly believe that whatever the minor cost of this program in non-taxed benefits would be more than made up by increased productivity, lowered health insurance premiums, and lowered medical expenditures for employees, employers and ultimately the Government.

SUMMARY

IHRSA commends the Committee, Senator Frist, and those other Senators who will join him on his legislative proposal. Obesity and lack of physical activity are

truly national problems. There is no one solution to the problem. Focusing on schools and workplaces may provide efficient and effective platforms from which to improve child and adult health status. Legislation should also provide the simple healthy workforce incentive of tax free employer provision of fitness benefits. These steps would be modest, but would result in real and successful progress in our fight against the Nation's number one public health problem.

PREPARED STATEMENT OF KATHERINE E. TALLMADGE

The devastating problem of childhood obesity shatters lives, diverts scarce public resources and causes heartbreaking suffering to millions of our Nation's youth.

It has become an epidemic that demands careful study and urgent action. As a nutritionist in private practice in Washington, D.C. for 20 years I have seen obesity in our youth evolve into something approaching a national tragedy.

As a health care professional I have seen this problem up close.

I. BIOGRAPHICAL SKETCH

I first started thinking about weight problems when I was a child in Ohio. A vivid memory from childhood was finding my mother weighing peas at the kitchen counter before dinner. The peas were scattering all over the counter and floor and I helped her pick them up.

"Mom, what are you doing?" I asked. Weighing peas, after all, seemed like a very strange thing to do.

"I'm fat," she replied. "I'm on a diet and I have to lose weight."

Now, you have to understand that my mother was—and is—a beautiful Swedish woman. She is artistic, funny and has always had tons of friends.

But all she could think about was how fat she was. She hid behind us kids in photographs and always put off doing things for herself, like buying new dresses, until she would "lose weight"—which she never seemed to do. The shame and disappointment she felt was something that stayed deep inside me.

Years later, when faced with choosing a major in college, I picked nutrition in undergraduate school and behavioral sciences in graduate school. I wasn't even aware of the inner voices affecting my decisions at the time. It's only now, after years of reflection, that I realize why I'm so passionate about my work. I chose this as my life's vocation so that I could help people like my mother.

When my own weight problem developed and caught me by surprise in college, and it eventually turned into an eating disorder, I was determined to solve my own problem so that I could help myself avoid the pain my mother experienced and be a better counselor in my career.

My professional career has evolved in response to my desire to make a real difference in people's lives. While studying nutrition in college, I was dismayed at the overwhelmingly negative results in weight loss studies. People who went on diets gained their weight back 95 percent of the time. I thought, what good is all this nutrition knowledge if people aren't benefiting?

I was determined to make a difference, so I decided to study behavioral sciences in graduate school to help me figure out what makes people tick and how to best help them change. My graduate studies also helped me become a better counselor which, I believe, has been necessary for my clients' success.

But the real reason I've been able to help so many people over the years is the time I've spent listening to and understanding my clients, becoming intimately involved in their day to day routines, and analyzing their many successes and failures. Solving my own eating disorder and weight problem has also given me empathy and insight into their unique needs and has convinced me that anyone can conquer this problem.

The bottom line is that I'm no sanctimonious preacher looking down at a congregation of sinners. I've been there! And I know what it takes to come back from those depths of despair.

I'm passionate about helping people solve their weight problems, which, I believe, saps them of health, energy and happiness. Let alone all of the horrible and preventable diseases which inevitably occur.

When I learned how easy and positive weight loss could be and how it could transform lives, I wanted to scream it from the rooftops. Diet Simple is my way of screaming from the rooftops!

II. SCOPE OF THE PROBLEM

One out of every five children in this country is overweight or obese, resulting in severe social, emotional, and medical problems for these youngsters. And 70 percent of overweight children between 10 and 13 will go on to become obese as adults, leading to skyrocketing health costs, misery, and early death for many.

This is expected to further burden a health care system already spending, some recent studies have concluded, as much as $293 billion annually on obesity and its related diseases. This is particularly startling when one realizes the overweight and obese adults of today most likely were not overweight as children. This new generation of overweight children promises a record number going into adulthood with skyrocketing health care costs.

"The greatest health risk of childhood obesity is the risk of becoming an overweight adult," argued Dr. Thomas Robinson, Assistant Professor of Pediatrics and Medicine at Stanford University School of Medicine at the Washington, D.C. conference.

But whether or not obesity continues into adulthood, childhood obesity presents many serious health risks to the child. Type II diabetes, for instance, which is normally diagnosed in obese adults, is becoming increasingly evident in children.

A study of children aged 19 and under in Cincinnati showed that prior to 1982, 4 percent of all cases of diabetes diagnosed were Type II or non-insulin-dependent. However, by 1996, that rate jumped to 16 percent, a 10-fold increase in little over 10 years. Obesity and inactivity were major risk factors for this diagnosis in children which occurred at a mean body mass index of 37 (higher than 25 is overweight). The highest prevalence was in African American females.

Overweight children are not immune from other adult-style diseases either. Cardiovascular risk factors such as elevated triglycerides and LDL cholesterol, along with lowered HDL cholesterol are often observed in overweight children. These children also suffer from higher rates of hypertension, sleep apnea, liver and gallbladder disease, and even orthopedic complications including Blount disease, characterized by bowed legs.

Because of these potentially serious health complications, overweight children should be routinely screened for levels of fasting insulin and glucose, and a fasting lipoprotein profile should be obtained regularly, according to Dr. William Dietz of the Centers for Disease Control and Prevention in the March 1998 issue of Pediatrics.

But experts believe the social consequences of childhood obesity are just as serious as the physical. Obese children become targets of early and systematic discrimination. By the time they are teens, a negative self image is developed, and increased behavioral and learning difficulties are observed, according to Dr. Dietz at the conference in Washington, D.C.

The National Longitudinal Survey of Youth, designed to examine the effects of obesity in adolescence on social achievement in early adulthood, found women who were obese in late adolescence and early adulthood achieved less years of advanced education, had lower family incomes, lower rates of marriage, and higher rates of poverty. These effects were found only in women, and even when controlled for the income and education of the family of origin.

"These results suggest that obesity was a cause rather than a consequence of socioeconomic status," said Dr. Dietz, in Pediatrics. "Adolescent obesity may be the worst socioeconomic handicap that women can suffer," he added.

Studies demonstrate clearly that obesity can ravage a life from youth to death. There are complex factors that interact to cause poor nutrition and limited physical activity which lead to obesity in young people.

The problem of obesity effects children of all races and economic backgrounds, however a disproportionate number of overweight or obese children come from low income Caucasian families, or African American, Mexican American, and Native American families of all income levels. Although genetic factors play a role in obesity development, researchers are skeptical that this explains the current problem. Human genetics have probably not altered in the last several decades while the incidence of obesity has risen dramatically.

Childhood obesity is obviously a result of the consumption of too much high calorie, low nutrient foods and too little physical activity. But why children are eating too much and exercising too little is multifaceted.

III. FAMILY AND SOCIETAL INFLUENCES

One of the most influential factors is the parenting the youngster receives, and the family environment in which he or she develops.

For many reasons, today's parents are less able or available for effective guidance. Often parents are struggling to deal with increased economic pressures. Many households are headed by single women. Or if there are two parents, they both likely work and have less time to guide their children's lifestyles and food choices. Several studies show parental neglect is a strong predictor of the development of childhood obesity.

The care givers are so overburdened with work responsibilities that they don't have time for the kids. The children fend for themselves with food. Television becomes the child care provider.

In recent decades, family meal times have changed in quality and quantity. Parents have become less likely to prepare all meals for their children and are resorting more to the purchase of fast foods or the use of frozen foods that children can choose and microwave themselves. Often families aren't eating meals together, which means children may be grazing on their favorite high calorie snack foods all afternoon while skipping family dinners and breakfasts. In fact, missing breakfast is a key risk factor for obesity in children. Nearly 80 percent of heavier girls fail to eat breakfast regularly, studies show. Also, families who eat dinner together are less likely to have obese children.

This suggests that the initial focus of preventive efforts should be on the obese parents of the young child, regardless of the weight status of the child.

When parents of overweight children were treated for obesity, the children were more likely to lose weight than if the children were directly treated, in a study published in the *American Journal of Clinical Nutrition* in 1998. Other studies show positive long term effects of treating the whole family.

What the parent eats and makes available in the house profoundly effects what the child eats and prefers.

Studies show that children will develop food preferences based on what is provided in the home by their parents. In studies conducted at Pennsylvania State University, kids' fat preferences and fat intakes were linked to parental fatness, so the heavier parents had kids who were preferring and eating diets that were higher in fat, said Dr. Leann Birch, Professor and Head of the Department of Human Development and Family Studies at Pennsylvania State University at the Washington, D.C. conference.

"Kids learn to prefer calorie-dense foods, and this could, in fact, be one of the factors that contributes to diets that are too high in calories and too high in fat," said Dr. Birch.

Birch's studies demonstrate that parents can teach children to love healthy food if it is presented positively.

"If we work at it, we should be able to help children to learn to eat what we think is good for them," says Birch. But, she warns, children naturally reject new foods, so parents must be patient, positive and vigilant and may need to present a new food at least 10 times before the child accepts it. Children have a natural love for sweets, so introducing sweets takes little or no effort.

Studies show that providing information that new foods taste good (not that it's "good for you!"), opportunities to sample good-tasting novel foods, or observing others enjoy foods can increase acceptance for both adults and children. Children's preferences for "disliked" vegetables were enhanced when they had opportunities to observe peers and parents selecting and eating those vegetables. But it may take up to twenty exposures to the foods for a child to prefer them.

Food preferences are learned and modifiable. Children eat what is available to them and learn to prefer vegetables and healthy foods if they are frequently and positively offered.

The level of a child's physical activity is also influenced by parents in many ways.

Without parental supervision, today it often isn't safe for children to be outdoors playing with friends or walking to and from school. Even when there is adequate supervision for children, today's youth are inclined toward more sedentary activities, such as watching television and playing on computers or video games.

Studies have shown clearly that there is a direct relationship between hours of television watched and obesity levels in children. It's up to families and care givers to encourage children to be active and to be role models for regular physical activity.

Most children are very receptive to going on walks, going hiking or swimming, or simply shooting some hoops with Mom or Dad. With strong family connections, these activities are more likely to be perceived as positive and valuable to the child and those values can be carried over into habits as an adult.

But as children move into their teenage years, parental influence over their behavior diminishes and they are more deeply influenced by peers and other broader societal factors. Even the best of parents are given little assistance by the larger

culture which influences the behaviors and attitudes of the children, especially as they become teens.

Unfortunately, the environment of many of our teenagers reinforces the over consumption of calorie-dense foods, snacks, and sodas, and doesn't encourage physical activity.

Schools are increasingly relying on selling calorie-dense sodas, snack foods, and fast foods to children to increase school revenues. Portion sizes for many foods and beverages have grown to absurdly large proportions. For example, she notes, the 7-11 "Big Gulp" contains 64 ounces and 600-800 calories. A bottle of soda now contains up to 20 ounces, when 20 years ago, the standard Coke was 6 oz.

In the past 20 years, teens' milk consumption has decreased while soda consumption has increased. Two-thirds of teenage boys are drinking 3 sodas per day, with two-thirds of girls drinking 2 sodas per day, according to the USDA. Studies have shown a link between soft drink consumption and obesity in teenagers.

Children are less active because of safety concerns, particularly low income children in urban areas. In some communities, there are no sidewalks to walk on, just roads to drive on. And to make matters worse, schools are offering and requiring less gym classes with recess quickly disappearing.

The 1997 Youth Risk Behavior Surveillance study administered by the Centers for Disease Control and Prevention found that half of all U.S. high school students did not meet basic exercise needs. It also found that substantially fewer girls exercised on a regular basis. Another trend is the decline in physical activity with increasing age. Between the 9th and 12th grades, boys exercised 10 percent less, while girls exercised 23 percent less. Black girls exercised even less than their white counterparts.

The report goes on to say that children have a natural need for more daily physical activity than adults. Elementary school children should be encouraged to accumulate more than 60 minutes and up to several hours per day of age- and developmentally-appropriate activity. The report emphasizes the importance of variety and that the majority of activity should be in play that is intermittent in nature. It adds that "extended periods of inactivity are inappropriate for children."

For adolescents, the guidelines are similar to those for adults. The report recommends that adolescents engage in three or more sessions per week of activities that last 20 minutes or more at a time and require moderate to vigorous levels of exertion.

SUMMARY

If parents don't eat vegetables and fruits, kids don't

If parents don't drink milk, kids don't

Kids can't lose weight unless their parents are eating healthy or are also on a weight loss program

Badgering the kids doesn't work.

Telling kids one thing and doing another is not working. Parents must model what they want their kids to do

Kids eat and learn to prefer the foods which are available in their homes. Hence, overweight parents have children who prefer fatty foods

When parents skip breakfast, kids skip breakfast—putting them at risk for poor school performance and obesity

When parents over-emphasize sodas, sweets and desserts, their children are more likely to develop sweet addictions. And even if the children don't have weight problems now, they will later

When parents don't exercise, kids don't do it or value it—and this stays with them for a life time

If parents don't teach their kids to cook, their children will rely on high calorie/low nutrient junk food and take-out

Studies demonstrate 50 percent of 5-year-old girls know what dieting is. And this is related to if their parents are dieting. This puts these children at risk of developing eating disorders and weight problems later.

Even though kids are overweight, they're nutritionally deficient and malnourished because of the poor quality of food they're eating.

Being overweight is causing serious self-image problems, lack of confidence in children, which will have profound effects on them their whole lives.

Overweight girls achieve less later in life.

IV. SOLUTIONS

The solution to solving the childhood obesity problem is complex. Where parents are having problems providing appropriate role modeling, society and schools may have to step in.

Increasing youngsters' physical activity levels may need to be addressed in society so children have safe environments in which to play and get around. Schools are a part of the answer as they need to place a higher value on time for physical activity and presenting nutritious foods in positive ways. And families need to understand the important role they play by setting better examples for their children and being physically fit and enjoying eating healthy together.

In my private nutritional counseling practice in Washington, DC, I have helped many overweight children gain control over their bodies by advocating a whole-family approach.

My own personal story illustrates how adult modeling affected my own body image, eating and weight problems later in life. But also how these problems can be overcome.

PREPARED STATEMENT OF MYRNA JOHNSON

On behalf of the Outdoor Industry Association, I want to thank the bipartisan leadership of the Health, Education, Labor and Pensions Committee for your commitment to addressing our Nation's obesity epidemic. Data compiled by the Center for Disease Control points to obesity as one of the single greatest health challenges facing our Nation. Today, 50 percent of adults, 16 percent of children aged 6-11 and 14 percent of adolescents are overweight and are at increased risk of chronic diseases such as diabetes, heart disease and cancer.

However, there is reason for great hope on the obesity front. Studies have also shown that regular exercise and a healthy diet can dramatically reduce obesity.

The time has come to get America's youth off the couch and outdoors. As an industry, we have identified educating young Americans on the physical and mental health benefits of outdoor recreation as one of our top public policy objectives. Specifically, we are supporting:

1. Legislation that ensures physical education in schools—full funding for the PEP initiative.
2. Greater outdoor recreation activities in schools.
3. Greater access to affordable recreation.

Outdoor recreation is one of the most effective tools we have in combating childhood obesity and we are committed to making this tool available to more Americans.

Upon careful review of "Improved Nutrition and Physical Activity Act," the Outdoor Industry Association is prepared to offer its strong and enthusiastic support for this legislation. This measure represents a thoughtful and comprehensive approach to addressing an enormously complex societal health problem. As one of America's fastest growing industries, we look forward to working with this Committee at each step of the legislative process.

The Outdoor Industry Association

The Outdoor Industry Association is the trade association of the $18 billion human-powered outdoor recreation industry. Our members include 1,100 manufacturers, retailers, and distributors of outdoor products associated with hiking, backpacking, climbing, canoeing, kayaking, fly fishing, and backcountry skiing. In 2000, Outdoor Industry Association's Participation Study found that hiking and mountain biking each had over 70 million participants and that 149 million Americans participated in basic outdoor recreation activities.

The events and aftermath of September 11th have also brought renewed focus on outdoor recreation. According to the Outdoor Industry Association Special Report: "The effects of September 1lth on Recreation, Travel and Leisure," 29 percent of Americans changed their travel plans for the 6 months following September 11th. When exploring the types of vacations or activities that Americans will take in future months, 91 percent of Americans say they would feel safest visiting national parks. Clearly, Americans are seeking outdoor experiences in these uncertain times.

Combating Obesity Through Outdoor Recreation

The "Improved Nutritional and Physical Activity Act" recognizes and emphasizes the critical nexus between recreation and reducing the prevalence of obesity. The Outdoor Industry Association is very supportive of Title II of this Act, "Community Demonstration Grants," which authorizes $40 million in fiscal year 1903 for an array of community-based recreation initiatives.

We would recommend language be included in Section 201 (b) that recognizes the potential to significantly leverage Federal dollars for recreation through community/

business partnerships. We look forward to working with you and your staff on this potential win-win measure.

The Outdoor Industry Association is also embarking on a health oriented campaign similar to that described in Title X, "Youth Media Campaign." During June of 2003, the Outdoor Industry Association will be launching a campaign highlighting the health benefits of outdoor recreation. Themes the industry will be emphasizing include: Eat Healthy, Play Healthy (the importance of diet and exercise) and Thinking Outside the School (motivational posters and or learning modules to encourage the discovery of nearby outdoor resources).

Again, our industry believes there is an opportunity for real synergy between our efforts and those policies being advanced in the "Improved Nutrition and Physical Activity Act." The American public will frequently pursue the physical activities that provide the most enjoyment. Human-powered outdoor recreation offers a myriad of funds and affordable sports activities for persons of all ages, and any fitness level. We look forward to working with you and your staff on this important component of the legislation.

Support for Obesity Legislation

The Outdoor Industry Association greatly appreciates the opportunity to work with this Committee in crafting and advancing meaningful obesity legislation. We stand ready to support your efforts with both technical drafting suggestions and the development of nationwide support for your legislation.

Outdoor Industry Association was founded in 1989 and provides trade services for over 4,000 manufacturers, distributors, suppliers, retailers, sales representatives and climbing gyms in the outdoor industry. Outdoor Industry Association programs include: industry research; representation in Washington, D.C.; educational programs and cost-saving benefits. OIA (*www.outdoorindustry.org*) is headquartered in Boulder, Colorado.

PREPARED STATEMENT OF CONNIE TIPTON

These comments are submitted on behalf of the member companies of the International Dairy Foods Association (IDFA) and its three constituent organizations, the Milk Industry Foundation, National Cheese Institute, and International Ice Cream Association. Members range from large multi-national corporations to single plant operations, and represent more than 85 percent of the total volume of milk, cultured products, cheese, and ice cream and frozen desserts produced in the United States. IDFA represents more than 600 dairy food manufacturers, marketers, distributors and industry suppliers across the United States and Canada, and in 20 other countries.

The dairy industry in the U.S. has made a significant investment and commitment over many years to research and fact development about the role of dairy products in diet and health. There also has been a major commitment by the dairy industry to educating consumers about the importance of a balanced, nutritious diet along with exercise to maintain good health. Long-standing alliances between the dairy industry and a broad range of recognized medical and scientific professionals and related organizations have provided the research and confirmation of dairy's key role in a healthy lifestyle. The IDFA organizations are committed to continuing and expanding these efforts.

As the Committee embarks on an exploration of issues related to improved nutrition and fitness, the dairy foods industry seeks to be a partner in providing existing information and research that may be helpful to your consideration.

The following messages about dairy products and their role in a nutritious diet provide an overview of some of the existing information that may be of interest. We would be happy to provide more detailed information about any of the research related to these messages, if the Committee is interested.

The Good News About Milk & Dairy

General Milk Statements

• Dairy products are available in a wide range of varieties to suit consumers' individual tastes and nutrition needs.

• People choose different milks for different reasons, and the different varieties of milk—fat-free, lowfat, whole, flavored and lactose-free—all deliver the same powerful package of nine essential nutrients: calcium, vitamin D, potassium, phosphorus, protein, vitamin B–12, vitamin A, riboflavin and carbohydrates.

• Dairy's role in a nutritious diet has been established and lauded by the nutrition and science community, including the American Dietetic Association, the National Institutes of Health, the U.S. Department of Agriculture, the National

Osteoporosis Foundation, the American Academy of Pediatrics and many other reputable health organizations.

• Milk is doctor recommended. The American Academy of Pediatrics recognizes widespread low calcium intake among children, which remains one of the most pressing public health problems. The AAP notes that because of these low intakes, pediatricians should recommend a daily diet that includes milk and other calcium-rich dairy foods. Further, children are more likely to consume more milk in place of soft drinks or other beverages if they have the option of flavored milk.[1]

• Studies show that many who are lactose intolerant, regardless of ethnic background, can drink up to two 8-ounce glasses of milk with food or in small quantities throughout the day without side effects. For those who cannot, lactose-free milk is widely available.[2]

Weight Loss/Weight Management

• Emerging studies suggest that dairy products may play a role in maintaining a healthy weight. Researchers have found that those individuals who consumed more milk and milk products were least likely to be overweight.[3 8]

• This protection from obesity found with increasing calcium/dairy intakes was not limited to fat-free or lowfat dairy products. The reported weight control benefits may be associated with a variety of dairy products.[3 8]

• Milk may also play a role in reducing the risk of obesity in children.[5] Researchers analyzed the diets of preschool children and found that those consuming four servings of a variety of dairy products per day was associated with less body weight compared to children who consumed the same number of calories but fewer servings of dairy products.[6]

• Compelling evidence found in animal studies suggest that the calcium from dairy is more effective in weight control than non-dairy sources or calcium supplements.[3] To date, emerging research in human subjects has shown similar results.

• Research in animal studies indicates those with a high calcium intake had an increase in the breakdown of fat, thereby burning more fat for energy, and required the use of less insulin.[3]

• Researchers at the University of Tennessee analyzed the diets of Americans using Government food consumption surveys (NHANES III) and found that body fat was significantly lower in people who consumed more dairy (after controlling for calorie intake, physical activity and other factors.)[3]

• Researchers at Purdue University found in women ages 18 to 31 years who consumed a diet containing at least 780 mg of calcium and 1,900 calories or less per day lost, or had less of an increase in, body weight over a 2-year period, compared to women who consumed the same number of calories but less calcium.[7]

• Researchers at Creighton University in Omaha found that women who consumed 1,000 mg of calcium (the amount in at least three 8-ounce glasses of milk) weighed about 18 pounds less than those who didn't. The researchers speculate that calcium may help turn off one of the mechanisms responsible for storing fat.

• A recent study published in JAMA found that overweight young adults who consume more dairy products—such as milk, yogurt and cheese—may be less likely to become obese and develop insulin resistance syndrome, a key risk factor for Type II diabetes and heart disease.[9]

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[1] American Academy of Pediatrics. Calcium requirements of infants, children, and adolescents. *Pediatrics.* 1999; 104(5):1152.

[2] Inman-Felton, AE. Overview of lactose maldigestion (lactase non-persistence). Journal of American Dietetic Association.1999; 99:481.

[3] Zemel, MB et al. Regulation of adiposity by dietary calcium. FASEB J. 2000; 14:1132.

[8] Davies, KM et al. Calcium intake and body weight. Journal of Clinical Endocrinology & Metabolism. 2000; 85:4635.

[3] Zemel, MB et al. Regulation of adiposity by dietary calcium. FASEB J. 2000; 14:1132.

[8] Davies, KM et al. Calcium intake and body weight. Journal of Clinical Endocrinology & Metabolism. 2000; 85:4635.

[5] Chan, GM et al. Journal of the American College of Nutrition, 2001.

[6] Carruth, BR and Skinner, JD. The role of dietary calcium and other nutrients in moderating body fat in preschool children. International Journal of Obesity. 2001; 25:559.

[3] Zemel, MB et al. Regulation of adiposity by dietary calcium. FASEB J. 2000; 14:1132.

[3] Zemel, MB et al. Regulation of adiposity by dietary calcium. FASEB J. 2000; 14:1132.

[3] Zemel, MB et al. Regulation of adiposity by dietary calcium. FASEB J. 2000; 14:1132.

[7] Teegarden, D et al. Calcium related to change in body weight in young women. Federation of American Societies of Experimental Biology Journal.1999; 13:A873.

[9] Pereira, MA et al. Dairy consumption, obesity, and the insulin resistance syndrome in young adults: The CARDIA study. Journal of the American Medical Association. 2002; 287:2081.

• A number of studies have shown that the intake of calcium (particularly from dairy products) is inversely associated with body weight in children, adult men and women, Caucasians and African Americans.[9]

Milk & Kids

• A growing body of evidence suggests that a decline in milk consumption may have serious, long-term detrimental effects on the bone health of today's youth.

• Milk consumption in school lunch increases when chocolate or other flavored milk is offered, significantly increasing calcium and riboflavin intakes. [10]

Flavored milks also offer a way to satisfy cravings without the guilt.

• Chocolate milk is a great way to satisfy chocolate cravings.

• Additional flavors found in dairy cases across the country include Caramel, Mocha Cappuccino, Vanilla, Banana, Orange, Strawberry and Cookies and Cream. Besides tasting great, the new milk flavors have the same amount of calcium and the eight other essential nutrients.

• Children and adolescents who are high consumers of soft drinks have lower intakes of riboflavin, folate, vitamins A and C, calcium and phosphorus.

PREPARED STATEMENT OF THE AMERICAN DIETETIC ASSOCIATION

Lifestyles that support and sustain the maintenance of a healthy weight, for both individuals and the population as a whole, are a major focus of the American Dietetic Association and its members. The rapid rise in the prevalence of overweight and obesity among all segments of the U.S. population is of grave concern as the health and quality of life of those afflicted plummets and health care costs and societal burdens continue to soar.

Dietetic professionals translate complex nutrition principles into a vast array of healthful and appealing food options for millions of Americans daily. Our unique education, supervised pre-practice experience, and mandated continuing professional education equip us to identify and address overweight, obesity and its health consequences at all stages of the life cycle and in a myriad of educational, community, medical, commercial, and research environments. We commend the Committee's pursuit of legislation that represents a community-based, thoughtful approach to the prevention and treatment of obesity for the American public. Federal legislation should focus on strategies to encourage local screening and intervention programs, and encompass the consensus achieved through the Surgeon General's "Call to Action" related to obesity and overweight. The public health focus of legislative proposals is extremely important. We recommend it be paired with a number of additional elements that will maximize its success.

Obesity is a complex disease state. Its definition must be evidence-based and appropriate to each segment of the population characterized. Modifiers such as age and ethnicity must be considered as general parameters for the U.S. population are established.

Not everyone who falls outside the upper limit of normal for defined parameters is obese even though their body weight may be higher than is recommended. We must be sure that weight reduction is promoted for those in whom weight loss would be of benefit. Individuals who make healthful food choices the majority of the time, who are physically active/physically fit, and at low risk for the development of diet-related disease should be urged to maintain the weight and lifestyle that is best for them.

The American Dietetic Association urges that obesity be designated a disease by Federal agencies and institutions (i.e., Centers for Medicare & Medicaid Services, Social Security Administration, Centers for Disease Control and Prevention, etc.) with all of the attendant ramifications that such a designation implies—including sanctioned insurance coverage for obesity treatment. Coverage will facilitate the timely provision of health services to treat obesity and its attendant commodities; i.e., hypertension, lipid abnormalities, diabetes mellitus. As interventions are implemented, parameters, in addition to weight change, must be identified as outcomes to be assessed. Examples include but are not limited to:

• Normalization of blood pressure, blood sugar, lipid parameters
• Normalization of respiratory rate, improved exercise tolerance
• Reduced rates of admission or length of stay in institutional settings
• Reductions in medications use

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[9] Pereira, MA et al. Dairy consumption, obesity, and the insulin resistance syndrome in young adults: The CARDIA study. Journal of the American Medical Association. 2002; 287:2081.

[10] Guthrie, HA. Effect of a flavored milk option in a school lunch program. Journal of American Dietetic Association. 1977; 71:35.

• Reductions in frequency of visits to health care providers
• Decreased incidence of obesity-related comorbidities.

Our knowledge of the genetic, environmental, cultural, behavioral, and emotional contributors to overweight and obesity is limited; current approaches to prevent or treat overweight and obesity are simplistic at best. An evidence-based approach to the development and implementation of strategies to prevent and treat overweight and obesity is necessary. Further, adequate annual appropriation of funds must accompany any demonstration project or research authorizations that are legislated.

Coordination among the numerous stakeholders—government, academia, medicine, industry and others-—is vital if rapid progress is to be made. Within Government institutions, we recommend strengthening the network of public officials who design and implement Federal, State and local projects and programs so that nutrition and physical activity are fully integrated within them. The Secretaries of Agriculture and Health and Human Services would benefit from having senior advisors on nutrition and health involved in the design and review of broad array of agency programs—not just those programs traditionally viewed as food, nutrition and health related. A deputy level position within the Surgeon General's office should ensure that nutrition and physical activity are fully integrated into Federal health and research agendas. Within the States, individuals with expertise in food, nutrition, and/or physical activity, are needed at top levels with the authority to coordinate information and resources and make public health initiatives in nutrition and physical activity effective.

Losing weight and maintaining a healthy weight in our American society is difficult, and ADA has several science-based positions on healthful eating, the balance between energy intake and expenditure, weight management, and medical nutrition therapy for diet-related medical conditions.

While a number of individuals with moderate to morbid obesity studied in clinical research settings are able to loose weight, few—perhaps only 5 percent of those studied—maintain their weight loss over time. A recent University of Pittsburgh study suggests that in the general adult population, planned modest weight loss of 10 percent or more maintained for at least 5 years occurs at a rate of approximately 25–27 percent. Data such as this are promising, but our ability to replicate them will depend on our willingness to understand and then act individually and as a Nation.

The best way to combat overweight and obesity is to prevent it. We support efforts to prevent or to reduce the incidence of childhood obesity, and in fact, have directed the ADA Foundation to turn its attention toward this issue. When working with children, we also must work with their families. Family members, of all ages, must become involved and must practice the dogmas that they preach.

Prevention and intervention modalities targeted to children must incorporate the development of healthful eating practices and daily physical activity. As promising programs or programmatic elements are identified, school and community-based nutrition and physical education initiatives can be tested and those that are effective expanded through grants and appropriations. A preventive approach, rather than an approach that targets weight management only after one or more disease-specific consequences have become established, offers the opportunity for restoration of a healthy weight before the comorbidities associated with obesity become entrenched and target organ damage occurs.

ADA urges the Committee to emphasize the importance of innovative approaches to the prevention and treatment of obesity throughout the lifecycle. This includes proactive work with adolescents and women of childbearing age to maintain a healthy weight prior to conception. It encompasses the promotion of weight gain during pregnancy according to established guidelines, and encourages breastfeeding during the first year of the infant's life. This type of approach should help to stem the tide of increased incidence gestational diabetes and Type II diabetes in our Nation's mothers and children.

Finally, we want to emphasize that increased awareness, education and action are needed to ensure positive health outcomes. Opportunity and incentives to pursue a healthy lifestyle must be supported with

• Reasonable access to a variety of low-cost nutritious foods for all Americans but especially for its children
• Nutrition education and/or behavioral counseling to facilitate food choices that support optimal weight maintenance and life-long healthful eating habits
• Physical activity curricula, programs and facilities that accommodate a broad range of individual interests and abilities and that are part of the established curriculum in elementary and secondary schools.
• Public and private insurance coverage for weight management programs initiated prior to the development of diet-related disease.

The emphasis on the identification of individuals who would benefit from prevention and/or treatment must be matched with a comparable effort to ensure that there is adequate funding to support sufficient numbers of sound, multidisciplinary weight management options once obesity has been diagnosed. Obesity is multifactorial by nature; its management will require a team approach. Registered dietitians and dietetic technicians, physicians, nurses, psychologists, exercise physiologists, pharmacists and others will need to work collaboratively to ensure success. The nature and depth of counseling required to effectively intervene in youth and adults with moderate to morbid obesity greatly exceeds that which can be provided in the context of the routine office visit.

As a society, we must acknowledge the effect that our national "culture" has on the food and activity choices of the individual. We must collectively seek to improve it and to shift toward it toward health.

In summary, ADA and its members are uniquely positioned to assist in the development and delivery of individualized prevention and treatment programs, to participate in community and school-based programs, and to conduct basic and applied research related to overweight and obesity.

Federal legislation to address overweight, obesity, nutrition and physical activity must have a public health focus at the community, school, family and individual levels; promote research to better understand contributing factors and solutions; and create opportunities for education and behavioral counseling for weight management, prevention, and treatment. Further, Federal and private health programs should provide coverage for medical nutrition therapy and behavior modification to reduce obesity and diet-related disease.

We commend the Committee for its work in bringing this issue to the forefront. Thank you, Mr. Chairman and Members of the Committee, for giving the American Dietetic Association the opportunity to share our views toward seeking and defining solutions to the epidemic of obesity that jeopardizes the health and well being of all.

PREPARED STATEMENT OF THE NATIONAL SOFT DRINK ASSOCIATION

NSDA is pleased to submit a statement to the Committee today to share our views on the issue of fitness and nutrition, and in particular, its role in combating child overweight and obesity. NSDA is the major trade association representing the United States soft drink industry. Our members produce a wide array of beverage products including carbonated soft drinks, fruit juices, fruit drinks, bottled waters, iced teas and coffees, sports drinks and herbal and energy drinks. The U.S. soft drink industry has sales of over $72 billion a year and employs more than 183,000 workers in all fifty States.

NSDA and its member companies commend the Committee for exploring ways to reverse rising obesity rates. Today's hearing is an important first step in understanding a very complex public health problem. There are three important components of any effort to reverse current obesity trends. First, Congress should take steps to implement the Surgeon General's most recent recommendation that all school-aged children receive 30 minutes of physical activity each day. We strongly believe that without this first critical step, any approach is likely to fail.

Second, we need to improve the level and quality of nutrition education. Nutrition information used for education purposes should be based on fact, not emotion. There is a great deal of misinformation masquerading as evidence regarding soft drink consumption and soft drinks and health. For example, teen soft drink consumption is often misrepresented. An analysis of Federal Government data by researchers at Virginia Tech shows the average adolescent consumes about a can of soda a day, nearly one-fourth of teens do not drink regular carbonated soft drinks and only 5 percent consumed more than three per day. This level of consumption falls within the USDA/HHS Dietary Guidelines for Americans and the dietary advice of the American Dietetic Association.

And third, the Committee should reject any recommendation to ban, tax, restrict or forbid the consumption of any particular food or beverage. Weight management professionals who work with patients know that efforts to prohibit foods in diet do not work, and may reinforce the negative behaviors they are trying to change.

With regard to the Surgeon General's recommendation about daily physical activity, we note with dismay that the physical education requirements in our public schools have been declining over the last 20 years. During the 1990s, the percentage of high school students enrolled in daily gym classes dropped from 42 percent to 29 percent and only one State today requires daily physical education for grades K-12. There are many reasons for this decline including new mandates on schools like

standardized testing, time constraints, liability concerns, and lack of adequate financial resources. NSDA believes that the "Improved Nutrition and Physical Activity Act (IMPACT)" being developed by the Committee is a step in the right direction toward the successful implementation of the Surgeon General's recommendation. We also believe that the Committee should urge the Congress to support full funding for the Physical Education for Progress (PEP) program in the FY2003 appropriations process and beyond.

NSDA believes however, that the private sector can also help schools address their revenue problems. Soft drink companies have had a strong and long-lasting commitment to America's education process for more than fifty years. Like many local businesses, beverage companies have developed successful partnerships with schools that provide value in the form of grants, scholarships and employee volunteer programs. These partnerships also generate revenue from the sale of beverages that help fund important educational programming, such as sports and physical education equipment, arts and theater programs, foreign language classes and computers and other technology.

These business partnerships are a "win-win." Beverage companies, schools, students and taxpayers all benefit. Educators are empowered to make decisions that best benefit their schools, students and communities. In fact, local control is the key to making these public-private partnerships work for schools. That is why the soft drink industry opposes further Federal legislative intervention in the issue.

The revenue generated from the sale of beverages in schools in an important part of the education funding equation in the United States. According to a March 2001 Survey by the National Association of Secondary School Principals (NASSP), 30 percent of schools report that their funding situation is worse than it was 5 years ago. The need for additional revenue is greater among the Nation's rural and urban schools.

In 1996, the Carnegie Foundation for the Advancement of Teaching and NASSP produced a report evaluation America's school entitled, "Breaking Ranks, Changing an American Institution." The report recommended that schools reach out to the business community to form alliances that enhance academic programs on behalf of students. The March 2001 NASSP survey on business relationships with schools shows that educators have embraced the recommendation, as over 90 percent of school principals support public-private partnerships with soft drink companies to improve education. Other key findings from the study show:

1. Over 60 percent of schools offer a wide variety of beverages in their vending machines, including water, 100 percent juice, sports drinks and juice drinks.

2. The number one use of the revenue generated by the sale of beverages in schools is to purchase sports and physical education equipment (66 percent of schools), followed by after-school student activities (59 percent), instructional materials (48 percent) field trips (46 percent) arts and theater programs (44 percent) and computers and other technology (42 percent).

It is important to remember the basic elements of achieving and maintaining a healthy lifestyle:

1. Establish a daily diet that is balanced and has variety and moderation for all foods and beverages consumed.

2. Engage in 30 minutes of physical activity daily.

Too many calories consumed from all sources, combined with a lack of physical activity are fueling rising obesity rates. The American Dietetic Association (ADA) counsels that there are no "good foods" or "bad foods" just good diet and bad diets. In addition, ADA says all foods have a place in a balanced diet.

Opponents to beverage sales in schools base their objections on their own allegations that consumption of soft drinks and other foods of minimal nutritional value are causing obesity and other health problems. Not only do these allegations ignore an ever-growing body of scientific evidence (see attachment) but they also defy logic and common sense. NSDA knows of no data or evidence that suggests that children and teenagers in States, cities, or school districts that restrict the sale of soft drinks in their schools are any less overweight or obese then those in states that allow the sales of competitive foods like soft drinks.

In closing, NSDA again commends the Committee for its efforts in developing legislation intended to evaluate the success of existing Federal nutrition programs and to encourage the development of physical fitness programs and education at the local level. We stand ready to work with the Committee in furtherance of these goals.

ATTACHMENT TO THE STATEMENT OF THE NATIONAL SOFT DRINK ASSOCIATION

RECENT ADVANCES IN SCIENTIFIC KNOWLEDGE CHALLENGE MANY COMMON VIEWS ABOUT SOFT DRINKS AND HEALTH

There is one simple truth in all the data about rates of overweight and obesity—if we consume more calories than we expend, we will gain weight.[1] Rising rates of obesity, especially pediatric obesity, present the Nation with a serious health challenge. As parents, educators, Government officials and healthcare professionals look for answers, accurate information is critical. In many instances, the facts challenge common misperceptions.

• Did you know that a November 2001 journal article by a leading researcher at the United States Department of Agriculture Center for Nutrition Policy and Promotion stated that sugar consumption is not associated with chronic diseases such as diabetes, obesity and hyperactivity in children? The author, Dr. Anne Mardis, MD currently at the National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention advises that the "focus on sugar as an independent risk factor for chronic disease and hyperactivity should be de-emphasized."[2]

Did you know that according to research conducted by the Georgetown University Center for Food & Nutrition Policy, presented at a major scientific conference in April 2001, 20 percent of teens 12 to 16 years of age do not consume regular carbonated soft drinks, 67 percent consume one 12-ounce can of regular carbonated soft drink per day or less and only 5 percent consume three or more cans per day. The simple message here is that most children are not "guzzling" soft drinks. Rather, they are finding a way to fit soda, milk, juice, water and sports drinks into their diets.[3]

• Did you know that according to research using the very latest Federal Government health data, conducted by Virginia Tech and presented to the American College of Nutrition annual conference in October 2001, soft drink consumption does not contribute to increases in dental cavities in children?[4] A recent University of Michigan study showed that soft drinks do not cause increased cavities in people under the age of 25.[5] Also, according to the National Institutes of Health, the number of dental cavities continues to decline and dental health has been improving for years, due to many factors, including water fluoridation and better oral hygiene.[6]

• Did you know that a recent study, funded by the dairy industry and published in the *American Journal of Clinical Nutrition*, showed that neither the caffeine nor the phosphorus found in some soft drinks contributes to poor bone health?[7]

• Did you know that the September 2001 Journal of the American Dietetic Association contains an official Nutrition Fact Sheet stating, "Regular carbonated soft drinks contain calories; milk and juice contain calories, vitamins and minerals—all beverages can have a place in a well-balanced eating pattern"? Further, the American Dietetic Association counsels that restricting foods or food ingredients is not a viable strategy for weight management.[8]

• Did you know that virtually no school system in the country provides daily physical activity for its students[9] despite the fact that the rate of pediatric and childhood obesity in this country has reached an alarming level? Today's school children receive less physical activity today than their counterparts did 5 years ago.[10]

• Did you know that low physical activity levels are associated with increasing obesity? According to a new study conducted by the National Public Health institute

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[1] "Straight Facts About Beverage Choices," Journal of the American Dietetic Association, September, 2001.

[2] Mardis, Anne, "Current Knowledge of the Health Effects of Sugar Intake," Family Economics and Nutrition Review, United States Department of Agriculture, Center for Nutrition Policy and Promotion, volume 13, number 1, 2001.

[3] Storey, M. & Forshee, R., "Relationship Between Soft Drink Consumption and BMI Among Teens," Experimental Biology 2001.

[4] Storey, M. & Forshee, R., "Beverage Consumption and Dental Caries," American College of Nutrition, 2001.

[5] Burt, B.A., "Is Sugar Consumption Still A Major Determinant of Dental Caries? A Systematic Review," www.lib.umich.edu/dentlib/nihcdc/abstracts burt2.html 2001.

[6] National Institutes of Health Consensus Development Conference Statement, "Diagnosis and Management of Dental Caries Throughout Life," March 26–28, 2001.

[7] Heaney, R. & Rafferty, K., "Carbonated Beverages and Urinary Calcium Excretion," American Journal of Clinical Nutrition, 2001, 74:343–7

[8] "Straight Facts About Beverage Choices," Journal of the American Dietetic Association, September 2001.

[9] "Shape of the Nation Report," National Association for Sport & Physical Education, pp. 3–5.

[10] National Association for Sport & Physical Education, "Public Attitudes Toward Physical Education," March 22, 2000.

in Helsinki and published in the American Journal of Clinical Nutrition,[11] among various behaviors, low levels of leisure exercise over time have the strongest relationship with obesity. The authors conclude that a physically active lifestyle, together with abstention from smoking, moderate alcohol consumption and a variety of healthy foods, provide the greatest likelihood of avoiding obesity. The results of the study of 24,604 Finnish men and women underscore the importance of regular exercise in maximizing the chances of maintaining a normal weight.

• Did you know that a National Institutes of Health (NIH) analysis of daily calorie consumption, published in the American Journal of Clinical Nutrition[12] concludes, "The lack of evidence of a general increase in energy intake among youths despite an increase in the prevalence of overweight suggests that physical inactivity is a major public health challenge for this group?" The study suggests that although some have tried to blame the over-consumption of food for rising obesity rates, the evidence does not support that position. The study suggests lack of exercise is a major contributor to obesity.

• Did you know that a new study from the University of Washington presented at the Experimental Biology 2002 Annual Meeting in April 2002 demonstrates that cola soft drinks have the same effect on satisfying hunger and thirst as orange juice and 1 percent milk? Adam Drewnowski, Ph.D., Professor of Epidemiology and Medicine and Director of the University of Washington's Nutritional Science Program said, "Some nutritionists believe that colas act only as thirst quenching liquids and have no influence on hunger or fullness, and that fruit juices and milk are said to be foods that you drink. In our study with healthy college-age men and women, we found nothing of the sort."

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[11] Am J Clin Nutr 2002: 5,809–817
[12] Am J Clin Nutr 2000:72(suppl):1343S–53S.